

**JEE** **ADVANCED**  
**2022**

Organised by **IIT Bombay**

# Information Brochure



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# **PART I: THE INSTITUTES**

## 1. Indian Institutes of Technology

Indian Institutes of Technology (IITs) are institutions of national importance established through Acts of Parliament for fostering excellence in education. Over the years, IITs have created a world class educational platform that is dynamically sustained through quality teaching and internationally acclaimed research with excellent infrastructure and the best available minds. The faculty and alumni of IITs occupy key positions in academia and industry throughout the world and continue to make considerable impact on all sections of the society. At present, there are twenty three IITs across the country.

The primary objectives of IITs are as follows:

- To create an environment that encourages freedom of thought and pursuit of excellence and inculcate the necessary vision and self-discipline to achieve excellence.
- To build a solid foundation of scientific and technical knowledge and to prepare competent and motivated engineers and scientists.
- To kindle an entrepreneurial spirit among the students.
- To prepare the students to become outstanding professionals and contribute to nation building.

Admission to various undergraduate programs [*see Clause 2. ACADEMIC PROGRAMS*] across IITs is carried out through the Joint Entrance Examination (Advanced) [JEE (Advanced)]. The Joint Entrance Examination (Advanced) 2022 [JEE (Advanced) 2022] and the subsequent process of admission to the IITs shall be governed by the rules contained in this document, read in conjunction with the Business Rules of the Joint Seat Allocation Authority (JoSAA) 2022 (to be published separately).

**ZONES, NAMES, LOCATIONS, AND ABBREVIATIONS OF THE TWENTY-THREE IITs**

<b>Zone</b>	<b>Institute</b>	<b>City</b>	<b>Abbreviation</b>
<b>East Zone</b>	Indian Institute of Technology Bhubaneswar	Bhubaneswar	IITBBS*
	Indian Institute of Technology Kharagpur	Kharagpur	IITKGP
	Indian Institute of Technology (ISM) Dhanbad	Dhanbad	IIT(ISM)
	Indian Institute of Technology Bhilai	Bhilai	IITBH
<b>Central Zone</b>	Indian Institute of Technology Kanpur	Kanpur	IITK*
	Indian Institute of Technology (BHU) Varanasi	Varanasi	IIT(BHU)
	Indian Institute of Technology Indore	Indore	IITI
<b>North-Central Zone</b>	Indian Institute of Technology Delhi	New Delhi	IITD*
	Indian Institute of Technology Jammu	Jammu	IITJMU
	Indian Institute of Technology Jodhpur	Jodhpur	IITJ
<b>North-East Zone</b>	Indian Institute of Technology Guwahati	Guwahati	IITG*
	Indian Institute of Technology Patna	Patna	IITP
<b>North Zone</b>	Indian Institute of Technology Roorkee	Roorkee	IITR*
	Indian Institute of Technology Mandi	Mandi	IITMandi
	Indian Institute of Technology Ropar	Ropar	IITRPR
<b>South Zone</b>	Indian Institute of Technology Madras	Chennai	IITM*
	Indian Institute of Technology Hyderabad	Hyderabad	IITH
	Indian Institute of Technology Palakkad	Palakkad	IITPKD
	Indian Institute of Technology Tirupati	Tirupati	IITTP
<b>West Zone</b>	Indian Institute of Technology Bombay#	Mumbai	IITB*
	Indian Institute of Technology Dharwad	Dharwad	IITDh
	Indian Institute of Technology Gandhinagar	Gandhinagar	IITGN
	Indian Institute of Technology Goa	Goa	IITGOA

\* Zonal Coordinating IITs to conduct JEE (Advanced) 2022 examination.

# Organizing Institute, JEE (Advanced) 2022 examination.

## 2. Academic Programs

Through JEE (Advanced), IITs offer admission into undergraduate courses leading to a Bachelors, Integrated Masters, Bachelor-Master Dual Degree in Engineering, Sciences, or Architecture. Both Bachelors and Masters degrees are awarded to candidates enrolled in the dual degree programs upon successful completion of the course curriculum requirements. In some of the IITs, students enrolled into the 4-year Bachelors program have the option to pursue B.Tech. (Honors) and/or B.Tech. with Minors. Dual Degree students may also pursue a Minor. Further, in some IITs, B.Tech. students also have the option to pursue Interdisciplinary Dual Degree, with Bachelors in the parent Department and Masters in some other Department. All the above options require fulfilment of certain academic performance related criteria. The types of academic programs offered at IITs and their minimum duration are given below\*:

B.Tech.	Bachelor of Technology	4 years
B.S.	Bachelor of Science	4 years
B.Arch.	Bachelor of Architecture	5 years
Dual Degree B.Tech.- M.Tech.	Dual Degree Bachelor of Technology and Master of Technology	5 years
Dual Degree B.S.-M.S.	Dual Degree Bachelor of Science and Master of Science	5 years
Integrated M.Tech.	Integrated Master of Technology	5 years
Integrated M.Sc.	Integrated Master of Science	5 years

*\* Only those academic programs for which admission is based on JEE (Advanced) examination are shown here. These Institutes also have other academic programs, viz., B.Des., M.Tech., M.Sc., Joint M.Sc.-Ph.D., Joint M.Tech.-Ph.D., M.Des., Ph.D., etc. with different admission procedure and criteria not falling under the purview of JEE (Advanced).*

However, not all the listed programs and courses are available in all the institutes. The relevant programs and courses offered in the academic year 2021-22 are given in Annexure-III (*COURSES OFFERED IN THE ACADEMIC YEAR 2021-22*). The programs that will be offered in the academic year 2022-23 will be announced during seat allocation (i.e., at the

stage of filling-in of choices for admission). An academic year usually starts in the month of July and ends in the month of June of the next year.

The programs are credit-based and thus offer the flexibility to progress at one's own pace. A minimum level of performance is essential for satisfactory progress. The medium of instruction is English in all the programs.

All Indian nationals who satisfy the eligibility criteria [*see Clause 11 ELIGIBILITY CRITERIA FOR INDIAN NATIONALS FOR APPEARING FOR JEE (ADVANCED) 2022*] can appear for JEE (Advanced) 2022. The successful candidates meeting the Class XII (or equivalent) performance criterion [*see Clause 26*] are eligible for admission into IITs. While allotting seats, policies as per Government of India rules are followed, depending on candidates' merit, category, and/or nationality. Foreign national candidates may also appear for JEE (Advanced) 2022. The details of the eligibility criteria for them are available at <https://jeeadv.ac.in/foreign.html>.

### 3. Reservation of Seats

Indian nationals belonging to certain categories are admitted under the seats reserved for them in accordance with the rules prescribed by the Government of India. The categories and the extent of reservation are as follows:

- General category belonging to Economically Weaker Section (GEN-EWS) – 10% of seats in every course. The benefit of reservation will be given only to those General category candidates who satisfy the conditions given in the OM No. 20013/01/2018-BC-II dated January 17, 2019 issued by the Ministry of Social Justice and Empowerment.
  - The criteria for GEN-EWS will be as per the prevailing norms and/or notifications of the Government of India.
- Other Backward Classes belonging to the Non-Creamy Layer (OBC-NCL) – 27% of seats in every course.

- OBCs should be listed in the current updated central list of OBCs (<http://www.ncbc.nic.in>).
- OBCs present in the state list but not covered in the central list of OBCs (as per the list in <http://www.ncbc.nic.in>) are **NOT** eligible to claim the reservation.
- The criteria for Non-Creamy Layer (OBC-NCL) will be as per the notification of Government of India.
- Candidates belonging to the creamy layer of OBC are **NOT** entitled for reservation. Such candidates are treated as belonging to the general (GEN), i.e. unreserved category, and they will be eligible only for the OPEN seats – *the seats for which all candidates are eligible*.
- Scheduled Caste (SC) – 15% of seats in every course.
- Scheduled Tribe (ST) – 7.5% of seats in every course.
- The benefit of reservation will be given only to those castes and tribes that are mentioned in the respective central list of corresponding states published by the Government of India (websites: <http://socialjustice.nic.in> and <https://ncst.nic.in>).
- Persons with Disability (PwD) – 5% seats in each of OPEN, GEN-EWS, OBC-NCL, SC, and ST category seats.
  - Candidates with at least 40% impairment irrespective of the type of disability i.e., locomotor, visual or SEVERE dyslexic shall be eligible for the benefits of PwD sub-category.
  - Leprosy-cured candidates who are otherwise fit to pursue the courses are also included in this sub-category.
- Candidates belonging to the GEN-EWS, OBC-NCL, SC, ST, and PwD categories/sub-categories will be declared as qualified on the basis of a relaxed criterion [*see Clause 22. RANK LISTS*].

Seats remaining vacant under the GEN-EWS, OBC-NCL, SC, and ST categories shall **NOT** be de-reserved to any other category. The reservation for

PwD candidates is horizontal and hence, unfilled seats if any, will be de-reserved to the respective categories i.e., unfilled SC-PwD seats will be converted to the SC category seats and so on. This will again be subject to availability of further rounds of counselling.

The category of a candidate as entered in the database, which will be made available by the JEE Apex Board [which conducts the JEE (Main) 2022 examination], will be final and shall remain the same in JEE (Advanced) 2022 examination. Requests for change of category will NOT be entertained.

Candidates must note that the benefit of reservation will be given to them subject to verification of documents. If it is discovered at any stage that a candidate has used a false / fake / incorrect document, or has furnished false, incorrect or incomplete information, in order to avail the benefit of reservation, then such a candidate shall be excluded from all admission processes. In case such a candidate has already been given admission, the admission shall stand cancelled.

#### **4. Defence Service Candidates**

Defence Service (DS) candidates are children of defence / paramilitary personnel killed or permanently disabled in action during war or peacetime operations. Two seats are available for preferential allotment in each Institute for DS candidates. To avail this preferential allotment, a DS candidate must be in the Common Rank List of JEE (Advanced) 2022<sup>1</sup> (*see Clause 22. RANK LISTS*).

#### **5. Supernumerary Seats for Female Candidates**

Following the directions of the Ministry of Education, Government of India<sup>2</sup>, and the decision taken by the IIT Council, supernumerary seats have been created for female candidates for improving the gender balance in the

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<sup>1</sup> No. 321/Adm/Misc/Vol-I, dated 22 October, 2020

<sup>2</sup> Reference: F.No.35-8/2017-TS.III dated 30<sup>th</sup> October, 2017

undergraduate programs in IITs. These supernumerary seats will be offered (a) to only those female candidates who are declared qualified in JEE (Advanced) 2022, and, (b) strictly based on the performance in JEE (Advanced) 2022.

The number of supernumerary seats in various programs will be decided by individual IITs ensuring that every institute has at least 20% female enrolment in undergraduate program(s). The detailed procedure for implementation of the above shall be set out in the Business Rules of JoSAA 2022 (which will be made available subsequently on <https://josaa.nic.in>).

## 6. Foreign Nationals

Candidates who are **NOT** citizens of India (by birth or naturalized) and/or are OCI/PIO card holders are treated as foreign nationals<sup>3</sup>. Seats allotted to such foreign national candidates are supernumerary with a cap of 10% of total number of seats in every course. These candidates are outside the ambit of reservation of seats under the GEN-EWS, OBC-NCL, SC, ST, and PwD categories / sub-categories, as specified herein. There are no separate supernumerary seats or sub-category for females in the foreign national supernumerary seats.

The foreign national candidates **who have studied or are studying abroad at 10+2 level or equivalent** at the time of registering for JEE (Advanced) 2022 are NOT required to write JEE (Main) 2022 and may register for JEE (Advanced) 2022 directly subject to fulfilment of other eligibility criteria (for details refer to <https://jeeadv.ac.in/foreign.html>).

The foreign national candidates who **have studied or are studying in India at 10+2 level or equivalent** are required to write JEE (Main) 2022 and qualify for JEE (Advanced) 2022 under the OPEN category. All eligibility criteria (1 to 5)

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<sup>3</sup> Reference: (The Gazette of India) No. CG-DL-E04032021-225647, dated: 4<sup>th</sup> March, 2021 [S.O 1050(E)]

also apply to such candidates [*see Clause 11. ELIGIBILITY CRITERIA FOR INDIAN NATIONALS FOR APPEARING FOR JEE (ADVANCED) 2022*].

The relevant information for foreign nationals is available at the following link:

<https://jeeadv.ac.in/foreign.html>.

## **7. Other Institutes admitting using JEE (Advanced) rank**

Some centrally funded institutes (listed below) have used JEE (Advanced) ranks in the past. These include:

- Indian Institutes of Science Education and Research (IISERs) located in Berhampur, Bhopal, Kolkata, Mohali, Pune, Thiruvananthapuram, and Tirupati
- Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram
- Rajiv Gandhi Institute of Petroleum Technology (RGIPT), Rae Bareilly
- Indian Institute of Petroleum & Energy (IIPET), Visakhapatnam

Candidates should contact these institutes directly for additional information regarding admission.

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# **PART II: THE EXAMINATION**

## 8. The Examination

The Joint Entrance Examination (Advanced) 2022 [JEE (Advanced) 2022] will be conducted by the seven Zonal Coordinating IITs under the guidance of the Joint Admission Board 2022 (JAB 2022). The performance of a candidate in JEE (Advanced) 2022 will form the basis for admission to the Bachelors, Integrated Masters, and Dual Degree programs (entry at the 10+2 level), mentioned in clause 2, in all the IITs in the academic year 2022-23. The decisions of JAB 2022 will be final in all matters related to JEE (Advanced) 2022 and admission to IITs in the academic year 2022-23.

## 9. Schedule of JEE (Advanced) 2022

The examination consists of two papers (Paper 1 and Paper 2) of three hours duration each. **Appearing in both the papers is compulsory.** The examination schedule is as follows.

<b>Date of Examination</b>	<b>July 03, 2022 (Sunday)</b>
Paper 1	09:00 IST to 12:00 IST
Paper 2	14:30 IST to 17:30 IST

It may be noted that the examination date will remain unchanged even if it is declared a public holiday.

All PwD candidates having disabilities (see *Reservation of Seats* for details) as applicable, are eligible for one hour compensatory time for each paper (i.e., for these candidates the end time will be 13:00 IST for Paper 1 and 18:30 IST for Paper 2). They must, however, fill in the requisite form [*see Annexure-II: CERTIFICATE FORMATS*] during registration for availing the compensatory time and/or availing the services of a scribe (amanuensis). Please see also Clauses 14 and 15 for additional information.

## 10. JEE (Main) 2022

Indian nationals who wish to appear for JEE (Advanced) 2022 are required to write / have written the JEE (Main) 2022 paper for admission to B.E./B.Tech. programs conducted by the National Testing Agency (NTA). Foreign national candidates who **have studied or are studying in India at 10+2 level or equivalent** and wish to appear for JEE (Advanced) 2022 are required to write / have written the JEE (Main) 2022 paper for admission to B.E./B.Tech. programs. Further information about JEE (Main) 2022 may be obtained from the website <https://jeemain.nta.nic.in>.

## 11. Eligibility Criteria for Indian Nationals Appearing for JEE (Advanced) 2022

All the candidates **must simultaneously fulfil each and every one of the following five criteria** to appear for JEE (Advanced) 2022.

### **Criterion 1 – Performance in JEE (Main) 2022:**

Candidates should be among the top 2,50,000 successful candidates (including all categories) in B.E./B.Tech. Paper of JEE (Main) 2022.

The percentages of various categories of candidates to be shortlisted are: 10% for GEN-EWS, 27% for OBC-NCL, 15% for SC, 7.5% for ST, and the remaining 40.5% is OPEN for all. Within each of these five categories, 5% horizontal reservation is available for PwD candidates.

The following table shows the order to be followed while choosing the top 2,50,000 candidates in various categories based on the performance in B.E./B.Tech. paper of JEE (Main) 2022.

**Category-wise distribution of top 2,50,000\* candidates (Criterion 1)**

Order	Category	Number of “Top” candidates	
1	OPEN	96187	101250
2	OPEN-PwD	5063	
3	GEN-EWS	23750	25000
4	GEN-EWS-PwD	1250	
5	OBC-NCL	64125	67500
6	OBC-NCL-PwD	3375	
7	SC	35625	37500
8	SC-PwD	1875	
9	ST	17812	18750
10	ST-PwD	938	

\* The total number of candidates may be slightly greater than 2,50,000 in the presence of “tied” ranks / scores in any category.

**Criterion 2 – Age limit:**

Candidates should have been born on or after October 1, 1997. Five years age relaxation is given to SC, ST, and PwD candidates, i.e., these candidates should have been born on or after October 1, 1992.

**Criterion 3 – Number of attempts:**

A candidate can attempt JEE (Advanced) maximum of two times in two consecutive years.

**Criterion 4 – Appearance in Class XII (or equivalent) examination\*:**

A candidate should have appeared for the Class XII (or equivalent) examination for the first time in either 2021 or 2022 with the subjects Physics, Chemistry, and Mathematics. Candidates who had appeared in Class XII (or equivalent) examination, for the first time in 2020 or earlier, are NOT eligible to appear in JEE (Advanced) 2022, unless covered by the one-time special measure set out below.

\* By appearance in Class XII (or equivalent) examination, it is meant that the board concerned declared the result for that year irrespective of

whether or not examination was conducted. It will be considered as an appearance even if the result of a particular candidate got withheld.

However, if the examination Board of Class XII (or equivalent) declared the results for the academic year 2019-20 on or after October 15, 2020, then the candidates of that board who appeared for their Class XII exam in 2020 are also eligible to appear in JEE (Advanced) 2022, provided they meet all the other eligibility criteria. In case the examination Board of Class XII (or equivalent) declared the results for the academic year 2019-20 before October 15, 2020 but the result of a particular candidate was withheld, then the candidate will not be eligible to appear in JEE (Advanced) 2022.

### **Relaxation in Criteria as a special case for JEE (Advanced) 2022**

- **One-time measure for those who first appeared in class 12<sup>th</sup> (or equivalent) examination in 2020/2021 AND successfully registered for JEE (Advanced) 2021 but did NOT appear**

Candidates who appeared in class 12<sup>th</sup> (or equivalent) examination for the first time in 2020 OR 2021 AND successfully registered for JEE (Advanced) 2021 but were absent in BOTH the papers, i.e., Paper 1 and Paper 2, of JEE (Advanced) 2021, are eligible to directly appear for JEE (Advanced) 2022 and do not need to fulfil Criteria 1 to 4. However, they must successfully register for the JEE (Advanced) 2022 in the online registration portal and pay the registration fee. Further, these candidates would be considered in addition to and not as part of the total number of candidates who would qualify from JEE (Main) 2022 for appearing in JEE (Advanced) 2022.

This is a one-time measure valid only for JEE (Advanced) 2022 due to the ongoing pandemic.

These candidates must confirm their eligibility for appearing in JEE (Advanced) 2022 by visiting the official website (<https://jeeadv.ac.in>) and filling in the requisite information during registration.

This one-time measure is NOT applicable to candidates who appeared for their class 12<sup>th</sup> exam for the first time before 2020.

○ **One-time measure for those who first appeared in class 12th in 2020**

As a one-time special measure due to the ongoing pandemic, candidates who appeared in class 12th (or equivalent) examination in 2020 for the first time are also eligible to appear for JEE (Advanced) 2022 PROVIDED they satisfy the following two criteria simultaneously: (i) The candidate should have appeared ONLY ONCE for JEE (Advanced), either in the year 2020 or 2021; OR, have NOT appeared in any paper in both JEE (Advanced) 2020 and JEE (Advanced) 2021. (ii) These candidate(s) should appear/should have appeared in JEE (Main) 2022 and meet the cut-off score of the top 2,50,000 successful candidates (including all categories) for qualifying for JEE (Advanced) 2022 in their respective category.

This one-time measure is applicable to ONLY those candidates for whom the appearance in JEE (Advanced) 2022 will be their first or second attempt and is NOT applicable to candidates who appeared for their class 12th exam for the first time before 2020. No candidate will be allowed to appear in JEE (Advanced) more than two times. Further, these candidates would be considered in addition to and not as part of the total number of candidates who would qualify from JEE (Main) 2022 for appearing in JEE (Advanced) 2022. Criteria 5 would be applicable to these candidate(s).

This is a one-time measure valid only for JEE (Advanced) 2022.

These candidates must confirm their eligibility for appearing in JEE (Advanced) 2022 by visiting the official website (<https://jeeadv.ac.in>) and filling in the requisite information.

**Criterion 5 – Earlier admission at IITs:**

A candidate should NOT have been admitted to an IIT irrespective of whether or not the candidate continued in the program OR accepted an IIT seat by reporting “online” / at a “reporting centre” in the past. Candidates whose admission to IITs was cancelled (for whatever reason) after joining any IIT are also NOT eligible to appear for JEE (Advanced) 2022.

Candidates who have been admitted to a preparatory course in any of the IITs for the first time in 2021 can appear in JEE (Advanced) 2022.

The candidates who were allocated a seat in an IIT through JoSAA 2021 but (i) did not report “online” / at any “reporting centre” OR, (ii) withdrew before the last round of seat allotment, OR, (iii) had their seat cancelled (for whatever reason) before the last round of seat allotment for IITs, are eligible to appear for JEE (Advanced) 2022.

However, in all of the above cases, the candidate is also required to fulfil the conditions mentioned from Criterion 1 to Criterion 4.

**Eligibility criteria for foreign national candidates can be found at <http://jeeadv.ac.in/foreign.html>.**

## 12. Online Registration for JEE (Advanced) 2022

**Eligibility:** All Indian nationals must simultaneously satisfy each and every one of the five eligibility criteria [*see Clause 11. ELIGIBILITY CRITERIA FOR INDIAN NATIONALS FOR APPEARING FOR JEE (ADVANCED) 2022*]. Registration will be cancelled if, at a later date, it is found that the candidate does not meet any of these five eligibility criteria.

**Registration Portal:** Candidates MUST register for appearing for JEE (Advanced) 2022. Registration is to be done only through the online registration portal where detailed instructions for registration will be provided.

<b>For online registration</b>	<a href="https://jeeadv.ac.in">https://jeeadv.ac.in</a>
<b>Online registration begins</b>	June 08, 2022 (Wednesday, 10:00 IST)
<b>Online registration closes</b>	June 14, 2022 (Tuesday, 17:00 IST)
<b>Last date for fee payment for registered candidates</b>	June 15, 2022 (Wednesday, 17:00 IST)

Foreign national candidates may check the link:

<https://jeeadv.ac.in/foreign.html>

### 13. Registration Fee for JEE (ADVANCED) 2022

Candidates who wish to appear for JEE (Advanced) 2022 must pay the registration fee as mentioned in the following table.

<b>Registration Fee</b>		
<b>Indian Nationals</b>	Female Candidates (all categories)	₹ 1400
	SC, ST, and PwD Candidates	₹ 1400
	All Other Candidates	₹ 2800
<b>Foreign Nationals (including PIO/OCI)</b>	Candidates Residing in SAARC Countries	USD 75 <sup>#</sup>
	Candidates Residing in Non-SAARC Countries	USD 150 <sup>#</sup>

<sup>#</sup> Or equivalent in INR

- The registration fee shown above DOES NOT INCLUDE service charges, processing fees, and any other charges that the payment gateway/banks may levy. Registration fee once paid is non-refundable and non-transferable. All candidates have to reach the examination centre at their own expense and have to make their own arrangements to appear for the examination.
- Detailed instructions related to the payment of registration fee will be provided at the time of JEE (Advanced) 2022 registration on the online registration portal.

### 14. Services of a Scribe

- As per office memorandum of the Ministry of Social Justice and Empowerment<sup>4</sup> the PwD candidates who are visually impaired OR dyslexic (severe) OR have disability in the upper limbs OR have lost fingers / hands

<sup>4</sup> Reference: F.No. 34-02/2015-DD-III dated August 29, 2018

thereby preventing them from properly operating the Computer Based Test platform may avail the services of a scribe (amanuensis).

- PwD candidates who desire to avail the services of a scribe need to opt for this during the online registration of JEE (Advanced) 2022.
- The scribe will help the candidate only in reading the questions and/or keying in the answers as per the directions of the candidate. A scribe will NEITHER explain the questions NOR suggest any solutions.
- To avail the services of scribe, the candidate should request the Chairperson, JEE (Advanced) 2022, of the nearest Zonal Coordinating IIT in the prescribed format (FORM-SCRIBE). The requisition, along with a copy of the PwD certificate (FORM-PwD [II/III/IV, whichever is applicable]) OR copy of the certificates of Dyslexic Candidate (FORM- DYSLEXIC 1 and DYSLEXIC 2), whichever is applicable, must be uploaded at the time of online registration for JEE (Advanced) 2022. The formats for the request letter and PwD/Dyslexic certificate are given in Annexure-II: CERTIFICATE FORMATS.
- Zonal coordinating IITs will make necessary arrangements, through the Test Centre Administrator (TCA) of the Examination Centre, to provide a panel of scribes (amanuenses). Scribes will be students of Class XI from the science stream with Mathematics as one of the subjects. The PwD/dyslexic (severe) candidate has to choose a scribe from this panel. The candidates will **NOT** be allowed to bring their own scribes.
- The candidate will be allowed to meet the panel of scribes one day prior to the examination i.e., July 02, 2022 (Saturday) in the presence of the IIT Representatives (IRs), Test Centre Administrator (TCA), and an Invigilator, and choose any one of the scribes.
  - *If it is found at any stage that a candidate has availed the services of a scribe and / or availed the compensatory time, but does not possess the extent of disability that warrants the use of a scribe and / or grant of compensatory time, the candidate will be excluded from the process*

*of evaluation, ranking, and admission. In case such a candidate has already been admitted to any IIT, the admission of the candidate will be cancelled.*

## **15. Documents Required for Registration**

Given below is a list of documents/certificates whose scanned copies are to be uploaded at the time of online registration for JEE (Advanced) 2022. The formats of the certificates, which are indicated in the brackets, are given in Annexure-II: CERTIFICATE FORMATS.

### **All candidates**

- Class X certificate if the date of birth is mentioned in it OR birth certificate.
- Class XII (or equivalent examination) certificate [for those who appeared first time for this examination in 2021 or whose Board declared the Class XII (or equivalent examination) result after October 15, 2020]. If mark sheet / pass certificate of Class-XII (or equivalent examination) for 2022 is available then it must be uploaded.
- Class XII (or equivalent examination) certificate [for those who appeared first time for this examination in 2020 and are eligible to appear in JEE (Advanced) 2022] based on relaxation of Criteria 4 in Clause 11.
- If the candidate's name is not same as in the Class X certificate, gazette notification showing the change of name.

### **For Candidates seeking admission under the GEN-EWS category**

- GEN-EWS certificate (FORM-GEN-EWS) should have been issued on or after April 01, 2022 in consonance with the latest guidelines of the Government of India.
- If any GEN-EWS candidate fails to submit the GEN-EWS certificate (issued on or after April 01, 2022) at the time of online registration, the

candidate has to upload a declaration [*Declaration in Lieu of GEN-EWS Certificate*] to that effect<sup>5</sup>.

**For Candidates seeking admission under the OBC-NCL category**

- OBC-NCL certificate (FORM-OBC-NCL) should have been issued on or after April 01, 2022 in consonance with the latest guidelines of the Government of India. If any OBC-NCL candidate fails to submit the OBC-NCL certificate (issued on or after April 01, 2022) at the time of online registration, the candidate has to upload a declaration [*Declaration in Lieu of OBC-NCL Certificate*] to that effect. Visit <http://www.ncbc.nic.in> for latest guidelines and updates on the Central List of State-wise OBCs.

**For Candidates seeking admission under the SC or ST category**

- Caste (for SC) or tribe (for ST) certificate (FORM-SC/ST), as per the latest guidelines of the Government of India.

**For Candidates seeking admission under the PwD category**

- Physical Disability certificate (Unique Disability Identification (UDID) Certificate or FORM-PwD [*II/III/IV, whichever is applicable*]) issued by the notified medical authority.
- Dyslexic candidates need to submit FORM-DYSLEXIC 1 and 2 instead of FORM-PwD. The certificate must mention ‘SEVERE’ under Dyslexia category to enable the candidate to get the benefit of PwD category.
- Individual IITs constitute medical boards at the time of admission to test the candidate’s level of disability. The opinion of the medical board shall be final and on this basis, the benefit of PwD category may be allowed or withheld. If the benefit is withheld, the admission to the concerned IIT may be cancelled.

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<sup>5</sup> Reference: No.F.No.20013/01/2018-BC-II

### **For candidates opting for compensatory time**

- Letter to the Chairperson of the nearest Zonal Coordinating IIT by filling FORM-COMPENSATORY TIME [*see ANNEXURE II: CERTIFICATE FORMAT*] along with the copy of the Disability Certificate.

*If it is found at any stage that a candidate has availed of compensatory time, but does not possess the extent of disability that warrants the same, the candidate will be excluded from the process of evaluation, ranking and admission. In case such a candidate has already been admitted to any IIT, the admission of the candidate will be cancelled.*

### **For Candidates needing the services of a scribe**

- Request letter to the Chairperson of the nearest Zonal coordinating IIT by filling FORM-SCRIBE [*see ANNEXURE II: FORM-SCRIBE*].

If it is found at any stage that a candidate has availed of the services of a scribe, but does not possess the extent of disability that warrants the same, the candidate will be excluded from the process of evaluation, ranking and admission. In case such a candidate has already been admitted to any IIT, the admission of the candidate will be cancelled.

### **For Candidates seeking admission under the DS category<sup>6</sup>**

- Certificate (FORM-DS) issued by respective record offices of Armed Forces Personnel.

Foreign national candidates should visit the link:

<https://jeeadv.ac.in/foreign.html>

**For candidates whose Class XII Examination Board is outside India or not listed in clause 25** [*See Clause 25. EXAMINATIONS CONSIDERED EQUIVALENT TO CLASS XII*]:

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<sup>6</sup> No. 321/Adm/Misc/Vol-I, dated 22 October, 2020

- A certificate from the Association of Indian Universities to the effect that the examination qualified by the candidates is equivalent to the Class XII examination.

## 16. Admit Card

- Candidates who successfully register for JEE (Advanced) 2022 can download the admit card from the online registration portal: <https://jeeadv.ac.in>.

Admit card downloading schedule	June 27, 2022 (Monday, 10:00 AM IST) to July 03, 2022 (Sunday, 02:30 PM IST)
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- The admit card will bear the following details of the candidate: Name, Roll number for JEE (Advanced) 2022, photograph, signature, date of birth, address for correspondence and category.
- In addition, the admit card will have the name and address of the examination centre allotted to the candidate.
- Candidates should carefully examine the entries in the admit card and in case of any discrepancy, they should contact the Chairperson, JEE (Advanced) 2022 of the respective Zonal coordinating IIT.
- In case of any problem in downloading the admit card, the candidate should immediately contact the Zonal Chairperson, JEE (Advanced) 2022.
- A printout of the downloaded admit card and a valid ORIGINAL photo identity card (any one of the following: Aadhaar Card, School/College/Institute ID, Driving License, Voter ID, Passport, PAN Card, Notarized Certificate with photograph) MUST be produced at the time of examination, without which, the candidate will not be allowed to appear for the examination.

## 17. Question Papers

- JEE (Advanced) 2022 will consist of two question papers: Paper 1 and Paper 2 of three hours duration each. Appearing for **both the papers is compulsory**.
- Each question paper will consist of three separate sections, viz., Physics, Chemistry and Mathematics. The syllabi are given in Annexure-I: SYLLABI.
- The question papers will consist of questions designed to test comprehension, reasoning and analytical ability of candidates.
- Negative marks may be awarded for incorrect answers for some of the questions. Details of the marking scheme will be provided in the “Instructions to Candidates” section at the time of examination.
- The candidates must carefully read and adhere to the detailed instructions given in the question papers available at the time of examination.
- The question papers will be in both English and Hindi languages. The candidates will have the option to choose (and also switch between) the preferred language anytime during the examination. English version will prevail in the event of any difference of opinion.
- Although sufficient care will be taken for the correctness of questions, in the event that a question(s) needs to be dropped, full marks for that question(s) will be awarded to ALL candidates.

## 18. Mode of Examination

The JEE (Advanced) 2022 examination will be conducted ONLY in the Computer Based Test (CBT) mode. To attain familiarity with the CBT mode candidates are advised to take mock tests available on the website <https://jeeadv.ac.in>.

Each candidate will be allotted a computer terminal (node) at the test centre. The welcome login screen of the CBT will display the photograph of the candidate allotted to that particular computer. For login, the candidate will

have to enter the JEE (Advanced) 2022 roll number as login-id and enter the date of birth (in ddmmYYYY format) as password (e.g., if the candidate's date of birth is 5<sup>th</sup> September, 2001, the password needed to be entered would be 05092001).

After login, the candidate would be able to see the detailed instructions for the examination. Candidates are advised to go through the instructions very carefully regarding the type of questions and marking scheme. At the designated time of the beginning of the examination, the candidates will be able to proceed and see the questions on the computer screen. Candidates will have the option to choose (and also switch/toggle between) their preferred language (English or Hindi) during the entire period of the examination.

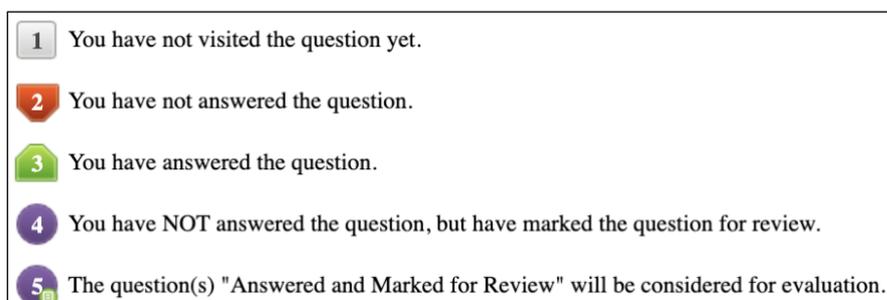
The keyboard attached to the computer, if any, will be disabled during the entire duration of the examination. Depending on the type of question, the answers to questions can either be entered by clicking on the virtual on-screen keyboard (numeric or otherwise) using the computer mouse or by clicking on the chosen option(s) using the computer mouse. Candidates will have the option to change/modify answers already entered any time during the entire duration of the examination.

In case the computer/mouse allotted to any candidate malfunctions at any time during the test, the candidate will be immediately allotted another computer system and the time lost due to this will be automatically adjusted in the server so as to give the candidate the full allotted time of 3 hours (180 minutes) [4 hours (240 minutes) for PwD candidates who opted for compensatory time] to answer the questions in each paper.

Each test centre will have representatives of the technical partner administering the examination as well as representatives of one or more of the IITs. The candidates may approach these representatives, through the invigilator, in case of any difficulty during the examination.

### 18.1 General Instructions for CBT:

- a. Total duration of each paper of JEE (Advanced) 2022 examination is of 3 hours (180 minutes) [4 hours (240 minutes) for PwD candidates who opted for compensatory time] duration.
- b. The on-screen computer clock counter of every candidate will be set at the server. The countdown timer on the top right side of computer screen will display the time remaining (in minutes) available for the candidate to complete the examination. When the timer reaches zero, the examination will end by itself. Candidate will not be required to end or submit the examination.
- c. The Question Palette displayed on the right side of the screen will show the status of each question using one of the following symbols:



- d. The “Marked for Review” status for a question indicates that the candidate would like to have a relook at that question. A candidate has the option of answering a question and simultaneously marking the question “Marked for Review”. The answers to those questions will be considered for evaluation. However, if a candidate has simply put “Marked for Review” for a question without answering it, the corresponding question marked for review without an answer will not be considered for evaluation. It may be noted that a candidate can return to any “Marked for Review” question at any time during

- the examination by clicking on the corresponding question number icon displayed on the Question Palette of the corresponding section.
- e. The candidate can collapse the question palette and thereby maximize the question viewing window by clicking on the ">" symbol that appears to the left of the question palette. To view the question palette again, the candidate can click on "<" symbol that appears on the right side of question window.
  - f. The Candidate can change the preferred language (English or Hindi) for displaying the questions, any time during the examination, by clicking on the dropdown menu in “View In” icon provided on the right side of the screen.
  - g. In order to view the entire question, the candidate can scroll up and down the question viewing area using the computer mouse. The candidate can click on  icon to navigate to the bottom and  icon to navigate to the top of the question area without scrolling.
  - h. The full paper can be viewed by clicking the “Question Paper” icon on the top right corner of the screen.
  - i. *One Scribble Pad* for doing rough work/calculations will be provided to the candidates at the start of each paper. The *Scribble Pad* would have a header page for the candidates to write down their *Name* and *Registration Number*. These have to be signed by the candidate and countersigned by the Invigilator. Candidates are allowed to take their signed *Scribble Pads* back with them at the end of each paper of the examination. No extra scribble pad will be given to candidates.

## 18.2 Navigating to a Question:

To navigate between sections of the question paper, a candidate needs to click on the preferred section from all the displayed sections.

To navigate between questions within the same section, the candidate needs to do the following:

- a. Click on the question number in the Question Palette at the right side of the screen to go to that numbered question directly. Note that using this option does NOT save the answer to the currently displayed question.
- b. Click on “Save & Next” to save the answer to any question. Clicking on “Save & Next” will save the answer for the current question and the next question will be displayed on the candidate’s computer screen.
- c. Click on “Mark for Review & Next” to mark a question for review (with or without answering it) and proceed to the next question.

### 18.3 Answering a Question:

1. Procedure for answering a multiple-choice type question:
  - a. To select the option(s), click on the corresponding button(s) of the option(s).
  - b. To deselect the chosen answer, click on the button of the chosen option again or click on the “**Clear Response**” button.
  - c. To save the answer, the candidate MUST click on the “**Save & Next**” button.
  - d. To mark the question for review (with or without answering it), click on the “**Mark for Review & Next**” button.
2. Procedure for answering questions that require inputs from on-screen virtual keyboard (numeric or otherwise):
  - a. A virtual keyboard will appear on the screen just below the question statement of these types of questions. The candidate needs to use the on-screen virtual keyboard to enter the answer in the required space with the help of the provided computer mouse.

- b. The answer can be changed, if required, at any time during the test. To save the answer, the candidate **MUST** click on the “**Save & Next**” button.
- c. To mark the question for review (without answering it), click on the “**Mark for Review & Next**” button.

Candidate will have the option to change the previously saved answer to any question, any time during the entire duration of the test. To change the answer to a question that has already been answered, first select the corresponding question from the Question Palette, then click on “Clear Response” to clear the previously entered answer and subsequently follow the procedure for answering that type of question.

#### **18.4 Navigating through sections:**

1. Sections in the question paper are displayed on the top bar of the screen. Questions in a section can be viewed by clicking on the section name. The section in which the candidate is currently viewing will be highlighted.
2. After clicking the “**Save & Next**” button on the last question of a section, the candidate will be taken automatically to the first question of the next section.
3. The candidate can shuffle between the sections and the questions within any section any time during the period of examination as per convenience.
4. The candidate can view the corresponding section summary as part of the legend that appears in every section above the question palette.

#### **19. Cities and Towns where JEE (Advanced) 2022 will be held**

JEE (Advanced) 2022 will be held in selected cities and towns in India. Candidates have to compulsorily choose eight (8) cities/towns of their choice at the time of online registration. **Efforts will be made to allot the city/town**

**from among the candidate's choices, but a different city/town may be allotted under exceptional circumstances. Requests for change of city/town will NOT be entertained under any circumstances.** A tentative list of cities/towns where JEE (Advanced) 2022 examination will be held is given in the following table. The final list of examination cities/towns would be notified in the registration portal before the start of the online JEE (Advanced) 2022 registration. JEE (Advanced) 2022 will not be conducted in any centres outside India.

**TENTATIVE LIST OF CITIES AND TOWNS FOR JEE (ADVANCED) 2022**

City/Town	Code	City/Town	Code	City/Town	Code
<b>IIT BOMBAY ZONE</b>		Delhi (West)	204	<b>NAGALAND</b>	
<b>GOA</b>		Faridabad	205	Dimapur	321
Panaji	101	Greater Noida	206		
Margao/Madgoan	102	Gurugram	207	<b>SIKKIM</b>	
		Noida	208	Gangtok	322
<b>GUJARAT</b>					
Ahmedabad	103	<b>JAMMU and KASHMIR</b>		<b>TRIPURA</b>	
Anand	104	Jammu	209	Agartala	323
Bhavnagar	105	Srinagar	210		
Gandhinagar	106			<b>WEST BENGAL</b>	
Bhuj	107	<b>LADAKH</b>		Siliguri	324
Mehsana	108	Leh	211		
Rajkot	109			<b>IIT KANPUR ZONE</b>	
Surat	110	<b>RAJASTHAN</b>		<b>MADHYA PRADESH</b>	
Vadodara	111	Ajmer	212	Bhopal	401
Valsad	112	Alwar	213	Indore	402
		Bikaner	214	Jabalpur	403
<b>KARNATAKA</b>		Jaipur	215	Sagar	404
Bagalkot	113	Jodhpur	216	Satna	405
Belagavi (Belgaum)	114	Kota	217	Ujjain	406
Bengaluru	115	Sikar	218		
Davanagere	116	Udaipur	219	<b>UTTAR PRADESH</b>	
Dharwad	117			Gorakhpur	407
Kalaburagi (Gulbarga)	118	<b>IIT GUWAHATI ZONE</b>		Jhansi	408
Hubballi (Hubali)	119	<b>ARUNACHAL PRADESH</b>		Kanpur	409
Mangaluru (Mangalore)	120	Naharlagun	301	Lucknow	410
Mysuru (Mysore)	121			Prayagraj (Allahabad)	411
Shivamogga (Shimoga)	122	<b>ASSAM</b>		Varanasi	412
Tumakuru (Tumkur)	123	Dibrugarh	302		
Udupi/Manipal	124	Guwahati	303	<b>IIT BHUBANESWAR ZONE</b>	
		Jorhat	304	<b>ANDAMAN &amp; NICOBAR ISLANDS</b>	
<b>MAHARASHTRA</b>		Silchar	305	Port Blair	501
Ahmednagar	125	Tezpur	306		
Akola	126			<b>ANDHRA PRADESH</b>	
Amravati	127	<b>BIHAR</b>		Srikakulam	502
Aurangabad	128	Arrah	307	Visakhapatnam	503
Chandrapur	129	Aurangabad	308	Vizianagaram	504
Dhule	130	Bhagalpur	309		
Jalgaon	131	Bihar Sharif	310	<b>CHHATTISGARH</b>	
Kolhapur	132	Chhapra	311	Bhilai	505
Mumbai	133	Darbhanga	312	Bilaspur	506
Nagpur	134	Gaya	313	Raipur	507
Nanded	135	Muzaffarpur	314		
Nashik	136	Patna	315	<b>JHARKHAND</b>	
Navi Mumbai	137	Purnea	316	Bokaro	508
Pune	138	Samastipur	317	Dhanbad	509
Sangli	139			Hazaribagh	510
Sangamner	140	<b>MANIPUR</b>		Jamshedpur	511
Satara	141	Imphal	318	Ranchi	512
Solapur	142				
Thane	143	<b>MEGHALAYA</b>		<b>ODISHA</b>	
Vasai	144	Shillong	319	Balasore	513
<b>IIT DELHI ZONE</b>				Berhampur (Ganjam)	514
<b>DELHI NCR</b>		<b>MIZORAM</b>		Bhubaneswar	515
Delhi (East)	201	Aizawl	320	Cuttack	516
Delhi (North)	202			Jeypore	517
Delhi (South)	203				

City/Town	Code
Rourkela	518
Sambalpur	519
<b>WEST BENGAL</b>	
Asansol	520
Baharampur (Murshidabad)	521
Burdwan	522
Durgapur	523
Kalyani (Nadia)	524
Kharagpur	525
Kolkata (North)	526
Kolkata (South)	527
<b>IIT MADRAS ZONE</b>	
<b>ANDHRA PRADESH</b>	
Amalapuram	601
Ananthapur	602
Bhimavaram	603
Chirala	604
Chittoor	605
Eluru	606
Gudlavalleru	607
Gudur	608
Guntur	609
Kadapa	610
Kakinada	611
Kavali	612
Kurnool	613
Machilipatnam	614
Markapur	615
Mylavaram	616
Narasaraopet	617
Nellore	618
Ongole	619
Puttur	620
Rajahmundry	621
Surampalem	622
Tadepalligudem	623
Tirupathi	624
Vijayawada	625
<b>KERALA</b>	
Alappuzha	626
Kannur	627
Kasaragod	628
Kochi	629
Kollam	630
Kottayam	631
Kozhikode	632
Malappuram	633
Palakkad	634
Thiruvananthapuram	635
Thrissur	636
<b>PUDUCHERRY</b>	
Puducherry	637
<b>TAMIL NADU</b>	
Chennai	638
Coimbatore	639

City/Town	Code
Madurai	640
Salem	641
Tiruchirapalli	642
Tirunelveli	643
Vellore	644
<b>TELANGANA</b>	
Adilabad	645
Hyderabad	646
Karimnagar	647
Khammam	648
Kodad	649
Mahabubnagar	650
Medak	651
Nalgonda	652
Nizamabad	653
Palvoncha	654
Sathupally	655
Siddipet	656
Suryapet	657
Warangal	658
<b>IIT ROORKEE ZONE</b>	
<b>CHANDIGARH</b>	
Chandigarh	701
<b>HARYANA</b>	
Ambala	702
Hisar	703
Jind	704
Karnal	705
Kuruksheetra	706
Panipat	707
Sonipat	708
Yamunanagar	709
<b>HIMACHAL PRADESH</b>	
Hamirpur	710
Kangra	711
Shimla	712
<b>MADHYA PRADESH</b>	
Gwalior	713
<b>PUNJAB</b>	
Amritsar	714
Bathinda	715
Jalandhar	716
Ludhiana	717
Mohali	718
Patiala	719
<b>UTTARAKHAND</b>	
Dehradun	720
Haldwani	721
Haridwar	722
Roorkee	723
<b>UTTAR PRADESH</b>	
Agra	724
Aligarh	725

City/Town	Code
Bareilly	726
Ghaziabad	727
Mathura	728
Meerut	729
Moradabad	730
Muzaffarnagar	731

## 20. Important Instructions to be followed on the day of the exam

- Candidates **MUST** carry a printed copy of the **downloaded** admit card and their **valid original photo identity card** (any one of the following: Aadhaar Card, School/College/Institute ID, Driving License, Voter ID, Passport, PAN Card, Notarized Certificate with photograph) for the examination. Only candidates having a valid admit card and photo identity card will be allowed to write the examination.
- The candidate's identity will be verified at the examination centre by invigilators as well as IIT representatives. If the identity of the candidate is in doubt, the candidate may not be allowed to appear for the examination. However, the IIT authorities, at their discretion, may provisionally permit the candidate to appear for the examination after completing certain formalities. No extra time will be allowed for completing the examination in lieu of the time taken for completing these formalities. In such cases where the candidate is permitted to provisionally appear for the examination, the decision of the Zonal Chairperson, JEE (Advanced) 2022 on the issue, shall be final.
- Impersonation and/or use of unfair means in the examination are considered as serious offences and will lead to disqualification of one's candidature from JEE (Advanced) 2022 and all admission related processes. It may also lead to legal action against such candidates.
- Only pens, pencils, drinking water in transparent bottle, downloaded admit card and an original photo identity card are allowed to be taken inside the examination hall. A candidate may carry/wear a simple analog watch. The following items will **NOT** be allowed inside the examination centre: smart/digital/programmable watches, mobile phones, Bluetooth devices, earphones, microphones, pagers, health bands or any other electronic gadgets, any printed/blank/hand written paper, log tables, writing pads, scales, geometry/pencil-boxes, pouches, calculators, pen drives, electronic pens, wallets, handbags, goggles or similar such items. Candidates are

advised NOT to wear charm/taweez, items containing metals such as ring, bracelet, earrings, nose pin, chain/necklace, pendant, badge, brooch, clothes with big buttons. They are also advised to wear open footwear like chappals and sandals.

- Candidates are strongly advised to bring drinking water in a transparent bottle.
- In view of the ongoing pandemic situation, candidates **MUST** wear mask and carry hand sanitizer (up to 50 ml in a transparent bottle).
- Candidates must report to the examination centres well in advance, and carry out the requisite formalities which will be mentioned in the admit card. Examination centres shall remain open from 07:00 IST.
- **Candidates arriving at the examination centre after commencement of the examination in each paper (09:00 IST for Paper 1 and 14:30 IST for Paper 2) will not be allowed to take the examination under any circumstances. The main entrance of the examination centre will be closed at 9:00 hrs (IST) for Paper 1 and at 14:30 hrs (IST) for Paper 2.**
- Candidates are required to be present in the examination hall for the entire duration of each paper. They **CANNOT** leave the examination hall before 12:00 IST for Paper 1 and before 17:30 IST for Paper 2.
- **Appearing in both Paper 1 and Paper 2 is compulsory.** Therefore, the responses of **ONLY** those candidates who have appeared for both Paper 1 and Paper 2 will be evaluated/graded.
- In case the COVID pandemic situation persists during JEE (Advanced) 2022, all the Standard Operating Procedures (SOPs) related to maintaining social distancing etc., as directed by the Central and State Governments, as well as the local authorities, must be strictly followed inside the examination centre/hall at all times.

## **21. Transmission of candidate responses and online display of answer keys**

- The responses of the candidates who have appeared for **BOTH** Paper 1 and Paper 2, recorded during the exam, will be available for viewing,

downloading and printing from the JEE (Advanced) 2022 candidate portal (to visit candidate portal, refer to <https://jeeadv.ac.in>).

- Provisional answer key is ONLY tentative and is subject to change.
- The provisional answer keys for both Paper 1 and Paper 2 will be displayed on the JEE (Advanced) 2022 online portal. After the display of provisional answer keys, the candidates may submit their feedback, if any, on the candidate portal.
- The final answer keys will be displayed on the website, after considering the candidates' feedback, as per the following schedule. The marks will be awarded in accordance with the final answer key:

<b>Copy of candidate responses to be available on the JEE (Advanced) 2022 website: <a href="https://jeeadv.ac.in">https://jeeadv.ac.in</a></b>	July 07, 2022 (Thursday, 17:00 IST)
<b>Online display of provisional answer keys on <a href="https://jeeadv.ac.in">https://jeeadv.ac.in</a></b>	July 09, 2022 (Saturday, 10:00 IST)
<b>Receiving feedback from candidates on provisional answer keys through candidate portal</b>	July 09, 2022 (Saturday, 10:00 IST) to July 10, 2022 (Sunday, 17:00 IST)
<b>Online display of final answer keys on <a href="https://jeeadv.ac.in">https://jeeadv.ac.in</a></b>	July 18, 2022 (Monday)

## 22. Rank Lists

- Only candidates who appear for BOTH Paper 1 and Paper 2 will be considered for ranking.
- The marks obtained by a candidate in Physics in JEE (Advanced) 2022 will be equal to the marks scored in the Physics part of Paper 1 plus the marks scored in the Physics part of Paper 2. Marks obtained in Chemistry and Mathematics will be calculated in the same way.
- The aggregate marks obtained by a candidate in JEE (Advanced) 2022 will be the sum of the marks awarded to the candidate in Physics, Chemistry and Mathematics.

- Rank lists are prepared based on the aggregate marks in JEE (Advanced) 2022.
- If the aggregate marks scored by two or more candidates are the same, then the following tie-break policy will be used for awarding ranks:
  - Step 1:** Candidates having higher positive marks will be awarded higher rank.
  - If the tie breaking criterion at Step 1 fails to break the tie, then the following criterion at Step 2 will be followed.
  - Step 2:** Higher rank will be assigned to the candidate who has obtained higher marks in Mathematics. If this does not break the tie, higher rank will be assigned to the candidate who has obtained higher marks in Physics. If there is a tie even after this, candidates will be assigned the same rank.
- Rank lists for preparatory courses [*see Clause 28. PREPARATORY COURSES*] will be prepared for SC, ST, and PwD candidates in all categories who satisfy the prescribed relaxed criteria given below.
- A candidate is said to have qualified in JEE (Advanced) if he/she secures the minimum percentage of marks in each subject and in aggregate, as per respective category and as per the table given below. A candidate who qualifies in more than one category will be considered in all the categories to which he/she belongs for the purpose of ranking.
- There will be no waiting list for ranking.
- Only those candidates who score the minimum prescribed marks in each subject and also in aggregate will be included in the rank list. The minimum prescribed marks vary with the category as shown in the following table.

### Minimum percentage of marks prescribed for inclusion in the rank list

Rank List	Minimum percentage of marks in each subject	Minimum percentage of aggregate marks
Common rank list (CRL)	10.0	35.0
GEN-EWS rank list	9.0	31.5
OBC-NCL rank list	9.0	31.5
SC rank list	5.0	17.5
ST rank list	5.0	17.5
Common-PwD rank list (CRL-PwD)	5.0	17.5
GEN-EWS-PwD rank list	5.0	17.5
OBC-NCL-PwD rank list	5.0	17.5
SC-PwD rank list	5.0	17.5
ST-PwD rank list	5.0	17.5
Preparatory course rank lists	2.5	8.75

*NOTE: (i) CRL is the rank list in which all candidates (across all categories) will be given ranks. (ii) Minimum percentage of aggregate marks may be lowered subsequently, if required, as per the MHRD directive (F.No. 28-8/2017-T.S.-I) dated June 13, 2018.*

### 23. Results of JEE (Advanced) 2022

- Results will be declared on Monday, July 18, 2022. Category-wise All India Ranks (AIR) of successful candidates will be available through the JEE (Advanced) 2022 online portal after the results are declared. Text messages will also be sent to the candidates to their registered mobile numbers.
- Individual rank cards will **NOT** be sent to candidates.
- Qualifying in JEE (Advanced) 2022, filling in choices and/or participating in the joint seat allocation process do not guarantee a candidate admission to IITs. Admission will depend on merit and the availability of seats during various rounds of seat allocation.

### 24. Architecture Aptitude Test for B.Arch. program

- B. Arch. program is available at IIT (BHU) Varanasi, IIT Kharagpur and IIT Roorkee only. Candidates desirous of joining the B. Arch. (Architecture) program will have to PASS the Architecture Aptitude Test (AAT).
- Only those candidates who have qualified in JEE (Advanced) 2022 are eligible to appear in AAT 2022.

- Apart from passing the Architecture Aptitude Test (AAT), the criterion of performance in Class XII (or equivalent) board examination [*see Clause 26. PERFORMANCE IN CLASS XII (OR EQUIVALENT) BOARD EXAMINATION*] will remain the same for B. Arch. program admission.
- Syllabus for AAT is given in Annexure-I: SYLLABI.
- Candidates must register online at the JEE (Advanced) 2022 online portal for AAT as per the time schedule set out below.
- AAT will be conducted at all IITs.
- The test will consist of one paper of three hours duration.
- The question paper for AAT will be available only in the English language.
- No separate admit card will be issued for AAT. The downloaded admit card of JEE (Advanced) 2022 has to be printed and produced in the AAT examination hall, along with original photo identity card.
- Candidates should bring their own drawing and colouring aids.
- The Joint Implementation Committee of JEE (Advanced) 2022 will decide the cut-off marks for passing AAT.
- Results of AAT will be declared on the JEE (Advanced) 2022 online portal.
- Candidates securing marks above the cut-off will be declared PASS in the test. There is no separate ranking in the AAT. There is no separate cut-off for students of any category.
- Allotment of seats will be solely based on the category-wise All India Rank in the JEE (Advanced) 2022 and B. Arch. program will be offered only to those candidates declared PASS in the AAT.

## Schedule of AAT

Portal for AAT Registration	<a href="https://jeeadv.ac.in">https://jeeadv.ac.in</a>
Registration for AAT	July 18, 2022, (Monday, 10:00 IST) to July 19, 2022, (Tuesday, 17:00 IST)
Architecture Aptitude Test	July 21, 2022 (Thursday) 09:00 to 12:00 IST (Candidate must reach exam centre by 08:30 IST)
Declaration of AAT Results	July 24, 2022 (Sunday)

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# **PART III: ADMISSION**

## **25. Examinations Considered as Equivalent to Class XII**

- The final examination of the 10+2 system, conducted by a Central or State Board recognized by the Association of Indian Universities (AIU).
- Intermediate or two-year Pre-University examination conducted by a Board or University recognized by the Association of Indian Universities.
- Final examination of the two-year course of the Joint Services Wing of the National Defence Academy.
- Senior Secondary School Examination conducted by the National Institute of Open Schooling with a minimum of five subjects.
- Any Public School, Board or University examination in India or in a foreign country recognized as equivalent to the 10+2 system by the AIU.
- H.S.C. vocational examination.
- A Diploma recognized by the All India Council for Technical Education (AICTE) or a State Board of Technical Education of at least 3 years duration.
- General Certificate Education (GCE) examination (London, Cambridge or Sri Lanka) at the Advanced (A) level.
- High School Certificate Examination of the Cambridge University or International Baccalaureate Diploma of the International Baccalaureate Office, Geneva.
- Candidates who have completed Class XII (or equivalent) examination outside India or from a Board not specified above should produce a certificate from the AIU to the effect that the examination they have passed is equivalent to the Class XII examination.
- In case the Class XII examination is not a public examination, the candidate must have passed at least one public (Board or Pre-University) examination earlier.

## 26. Performance in Class XII (or Equivalent) Board Examination

Candidates must **PASS** class XII (or Equivalent) exam with the following subjects:

- i. Physics
- ii. Chemistry
- iii. Mathematics
- iv. A language
- v. Any subject other than the above four

Foreign candidates may follow the link <https://jeeadv.ac.in/foreign.html> for eligibility criteria.

## 27. Joint Seat Allocation

- The seats across IITs, NITs, IIITs and other Government Funded Technical Institutes (GFTIs) will be offered and allocated through a common process by the Joint Seat Allocation Authority (JoSAA), to be held in online mode for current year.
- Candidate who secured Rank in JEE (Advanced) 2022 are eligible to participate in Joint Seat Allocation process.
- All the candidates who are eligible for admission will have to participate in the joint seat allocation process by filling in their preferential choices of the courses and institutes.
- The detailed instructions for filling-in the choices and the seat allotment procedure will be made available by JoSAA through Seat Allotment Business Rules.
- The schedule of the joint seat allocation will be announced separately by JoSAA 2022.
- The list of courses that will be offered by the IITs for admission for the academic year 2022-23 will be made available at the time of online filling-in of choices.

## **28. Preparatory Courses**

- The seats reserved for SC, ST and PwD candidates which remain vacant will be allotted to the candidates of respective categories for admission to a preparatory course of one-year duration on the basis of relaxed admission criteria [*see Clause 22. RANK LISTS*].
- Admission is given to the candidates in the preparatory course provided (i) the seats reserved for the respective category are vacant, (ii) candidates satisfy minimum norms, and (iii) candidates have not accepted a seat in the preparatory course earlier.
- Selected IITs will run preparatory courses of one-year duration for SC, ST and PwD candidates intended to prepare them to pursue the academic program (for Academic Year 2023-24) to which they have been allocated. At the end of this course, candidates are declared as ‘pass’ or ‘fail’. The institute at which one-year preparatory course is run for a candidate may be different from the institute allocated to the candidate for their academic program.
- On successful completion of the course, the candidates will be offered direct admission in 2023 (Academic Year 2023-24) to the already allotted undergraduate course at the originally allocated IIT.
- Candidates admitted to the preparatory course in 2022 are eligible to appear for JEE (Advanced) 2023 subject to fulfilling other eligibility criteria.
- Filling-in of choices for preparatory courses is to be completed through the JoSAA online portal.

## **29. Additional Requirements for Certain Courses**

- Those who opt for B.Tech. in Mining Engineering/Mining Machinery Engineering OR B.Tech.-M.Tech. Dual Degree in Mining Engineering/Mining Safety Engineering OR Integrated M.Tech. in Applied Geology/Applied Geophysics OR Integrated M.Sc. in Applied Geology/Exploration Geophysics, must not have any form of colour

blindness. A certificate to this effect from a govt. registered medical practitioner has to be uploaded at the time of online reporting for seat acceptance. IITs may constitute a medical board to test the validity of the candidate's medical condition. The opinion of the medical board shall be final and on this basis, the admission to the concerned IIT may be cancelled if it is found that the candidate suffers from any form of colour blindness.

- PwD candidates cannot opt for B.Tech. in Mining Engineering/Mining Machinery Engineering OR B.Tech.-M.Tech. Dual Degree in Mining Engineering/Mining Safety Engineering OR Integrated M.Tech. in Applied Geology/Applied Geophysics.
- PwD candidates with locomotor disability cannot opt for Integrated M.Sc. in Applied Geology/Exploration Geophysics.
- The standards of visual acuity with or without glasses will be adhered to strictly for candidates seeking admission to Mining Engineering as per DGMS Circular 14 of 1972. Persons with one-eyed vision are not permitted to work underground. Candidates with these limitations are not allowed to opt for admission to Mining Engineering and Mining Machinery Engineering.

### **30. Gender Restriction for Mining Engineering Profession**

- Section 46 (1) of the Mines Act, 1952 states that

*“No woman shall, notwithstanding anything contained in any other law, be employed*

*(a) in any part of a mine which is below ground,*

*(b) in any mine above ground except between 6:00 and 19:00 hrs.”*

However, female candidates will be admitted to Mining Engineering or Mining Machinery Engineering related courses at IIT (ISM) Dhanbad, IIT Kharagpur and IIT (BHU) Varanasi.

### **31. List of Courses Offered by IITs in the Academic Year 2021-22**

The relevant courses offered by IITs in the academic year 2021-22 are given in Annexure – III. Some of the courses have additional requirements and these are marked as AR. The courses to be offered by the various Institutes in the Academic Year 2022-23 may vary. A few of the courses offered in 2021 may not be offered at all or may be modified (course title and/or content). It is also possible that a few new courses will be offered. The additional requirements may also change. The final list will be made available in the JoSAA on-line portal at the time of filling-in of the choices for seat allocation.

### **32. Important Dates**

Important dates of various activities regarding JEE (Advanced) 2022 and AAT 2022 are presented in Annexure - IV. Changes in the date(s), if any, will ONLY be published on the official website (<https://jeeadv.ac.in>). Candidates are therefore, advised to visit the official website from time to time to check for updates.

### **33. Grievances**

All stages of JEE (Advanced) 2022 will be conducted with transparency. Should there be any grievance relating to JEE (Advanced) 2022, the candidate must write to the Organizing Chairman of JEE (Advanced) 2022 for clarification at the addresses given in Annexure - V. The decision taken on such grievances by the Organizing Chairman of JEE (Advanced) 2022 shall be final.

### **34. Hindi Version**

This Information Brochure is published in English as well as in Hindi. In the event of doubt or discrepancy, the English version will prevail.

# **Annexures**

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# Annexure-I SYLLABI

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# CHEMISTRY

## Physical chemistry

### **General topics**

Concept of atoms and molecules; Dalton's atomic theory; Mole concept; Chemical formulae; Balanced chemical equations; Calculations (based on mole concept) involving common oxidation-reduction, neutralisation, and displacement reactions; Concentration in terms of mole fraction, molarity, molality and normality.

### **Gaseous and liquid states**

Absolute scale of temperature, ideal gas equation; Deviation from ideality, van der Waals equation; Kinetic theory of gases, average, root mean square and most probable velocities and their relation with temperature; Law of partial pressures; Vapour pressure; Diffusion of gases.

### **Atomic structure and chemical bonding**

Bohr model, spectrum of hydrogen atom, quantum numbers; Wave-particle duality, de Broglie hypothesis; Uncertainty principle; Qualitative quantum mechanical picture of hydrogen atom, shapes of *s*, *p* and *d* orbitals; Electronic configurations of elements (up to atomic number 36); Aufbau principle; Pauli's exclusion principle and Hund's rule; Orbital overlap and covalent bond; Hybridisation involving *s*, *p* and *d* orbitals only; Orbital energy diagrams for homonuclear diatomic species; Hydrogen bond; Polarity in molecules, dipole moment (qualitative aspects only); VSEPR model and shapes of molecules (linear, angular, triangular, square planar, pyramidal, square pyramidal, trigonal bipyramidal, tetrahedral and octahedral).

## **Energetics**

First law of thermodynamics; Internal energy, work and heat, pressure-volume work; Enthalpy, Hess's law; Heat of reaction, fusion and vapourization; Second law of thermodynamics; Entropy; Free energy; Criterion of spontaneity.

## **Chemical equilibrium**

Law of mass action; Equilibrium constant, Le Chatelier's principle (effect of concentration, temperature and pressure); Significance of  $\Delta G$  and  $\Delta G^0$  in chemical equilibrium; Solubility product, common ion effect, pH and buffer solutions; Acids and bases (Bronsted and Lewis concepts); Hydrolysis of salts.

## **Electrochemistry**

Electrochemical cells and cell reactions; Standard electrode potentials; Nernst equation and its relation to  $\Delta G$ ; Electrochemical series, emf of galvanic cells; Faraday's laws of electrolysis; Electrolytic conductance, specific, equivalent and molar conductivity, Kohlrausch's law; Concentration cells.

## **Chemical kinetics**

Rates of chemical reactions; Order of reactions; Rate constant; First order reactions; Temperature dependence of rate constant (Arrhenius equation).

## **Solid state**

Classification of solids, crystalline state, seven crystal systems (cell parameters  $a, b, c, \alpha, \beta, \gamma$ ), close packed structure of solids (cubic), packing in fcc, bcc and hcp lattices; Nearest neighbours, ionic radii, simple ionic compounds, point defects.

## **Solutions**

Raoult's law; Molecular weight determination from lowering of vapour pressure, elevation of boiling point and depression of freezing point.

## **Surface chemistry**

Elementary concepts of adsorption (excluding adsorption isotherms); Colloids: types, methods of preparation and general properties; Elementary ideas of emulsions, surfactants and micelles (only definitions and examples).

## **Nuclear chemistry**

Radioactivity: isotopes and isobars; Properties of  $\alpha$ ,  $\beta$  and  $\gamma$  rays; Kinetics of radioactive decay (decay series excluded), carbon dating; Stability of nuclei with respect to proton-neutron ratio; Brief discussion on fission and fusion reactions.

## **Inorganic chemistry**

### **Isolation/preparation and properties of the following non-metals**

Boron, silicon, nitrogen, phosphorus, oxygen, sulphur and halogens; Properties of allotropes of carbon (only diamond and graphite), phosphorus and sulphur.

### **Preparation and properties of the following compounds**

Oxides, peroxides, hydroxides, carbonates, bicarbonates, chlorides and sulphates of sodium, potassium, magnesium and calcium; Boron: diborane, boric acid and borax; Aluminium: alumina, aluminium chloride and alums; Carbon: oxides and oxyacid (carbonic acid); Silicon: silicones, silicates and silicon carbide; Nitrogen: oxides, oxyacids and ammonia; Phosphorus: oxides, oxyacids (phosphorus acid, phosphoric acid) and phosphine; Oxygen: ozone and hydrogen peroxide; Sulphur: hydrogen sulphide, oxides, sulphurous acid, sulphuric acid and sodium thiosulphate; Halogens: hydrohalic acids, oxides and oxyacids of chlorine, bleaching powder; Xenon fluorides.

### **Transition elements (3d series)**

Definition, general characteristics, oxidation states and their stabilities, colour (excluding the details of electronic transitions) and calculation of spin-only magnetic moment; Coordination compounds: nomenclature of mononuclear coordination compounds, cis-trans and ionisation isomerisms, hybridization and geometries of mononuclear coordination compounds (linear, tetrahedral, square planar and octahedral).

### **Preparation and properties of the following compounds**

Oxides and chlorides of tin and lead; Oxides, chlorides and sulphates of  $\text{Fe}^{2+}$ ,  $\text{Cu}^{2+}$  and  $\text{Zn}^{2+}$ ; Potassium permanganate, potassium dichromate, silver oxide, silver nitrate, silver thiosulphate.

### **Ores and minerals**

Commonly occurring ores and minerals of iron, copper, tin, lead, magnesium, aluminium, zinc and silver.

### **Extractive metallurgy**

Chemical principles and reactions only (industrial details excluded); Carbon reduction method (iron and tin); Self reduction method (copper and lead); Electrolytic reduction method (magnesium and aluminium); Cyanide process (silver and gold).

### **Principles of qualitative analysis**

Groups I to V (only  $\text{Ag}^+$ ,  $\text{Hg}^{2+}$ ,  $\text{Cu}^{2+}$ ,  $\text{Pb}^{2+}$ ,  $\text{Bi}^{3+}$ ,  $\text{Fe}^{3+}$ ,  $\text{Cr}^{3+}$ ,  $\text{Al}^{3+}$ ,  $\text{Ca}^{2+}$ ,  $\text{Ba}^{2+}$ ,  $\text{Zn}^{2+}$ ,  $\text{Mn}^{2+}$  and  $\text{Mg}^{2+}$ ); Nitrate, halides (excluding fluoride), sulphate and sulphide.

## Organic chemistry

### **Concepts**

Hybridisation of carbon;  $\sigma$  and  $\pi$ -bonds; Shapes of simple organic molecules; Structural and geometrical isomerism; Optical isomerism of compounds containing up to two asymmetric centres, (R,S and E,Z nomenclature excluded); IUPAC nomenclature of simple organic compounds (only hydrocarbons, mono-functional and bi-functional compounds); Conformations of ethane and butane (Newman projections); Resonance and hyperconjugation; Keto-enol tautomerism; Determination of empirical and molecular formulae of simple compounds (only combustion method); Hydrogen bonds: definition and their effects on physical properties of alcohols and carboxylic acids; Inductive and resonance effects on acidity and basicity of organic acids and bases; Polarity and inductive effects in alkyl halides; Reactive intermediates produced during homolytic and heterolytic bond cleavage; Formation, structure and stability of carbocations, carbanions and free radicals.

### **Preparation, properties and reactions of alkanes**

Homologous series, physical properties of alkanes (melting points, boiling points and density); Combustion and halogenation of alkanes; Preparation of alkanes by Wurtz reaction and decarboxylation reactions.

### **Preparation, properties and reactions of alkenes and alkynes**

Physical properties of alkenes and alkynes (boiling points, density and dipole moments); Acidity of alkynes; Acid catalysed hydration of alkenes and alkynes (excluding the stereochemistry of addition and elimination); Reactions of alkenes with  $\text{KMnO}_4$  and ozone; Reduction of alkenes and alkynes; Preparation of alkenes and alkynes by elimination reactions; Electrophilic addition reactions of alkenes with  $\text{X}_2$ ,  $\text{HX}$ ,  $\text{HOX}$  and  $\text{H}_2\text{O}$  ( $\text{X}$ =halogen); Addition reactions of alkynes; Metal acetylides.

## **Reactions of benzene**

Structure and aromaticity; Electrophilic substitution reactions: halogenation, nitration, sulphonation, Friedel-Crafts alkylation and acylation; Effect of *o*-, *m*- and *p*-directing groups in monosubstituted benzenes.

## **Phenols**

Acidity, electrophilic substitution reactions (halogenation, nitration and sulphonation); Reimer-Tiemann reaction, Kolbe reaction.

## **Characteristic reactions of the following (including those mentioned above)**

Alkyl halides: rearrangement reactions of alkyl carbocation, Grignard reactions, nucleophilic substitution reactions; Alcohols: esterification, dehydration and oxidation, reaction with sodium, phosphorus halides,  $\text{ZnCl}_2/\text{concentrated HCl}$ , conversion of alcohols into aldehydes and ketones; Ethers: Preparation by Williamson's Synthesis; Aldehydes and Ketones: oxidation, reduction, oxime and hydrazone formation; aldol condensation, Perkin reaction; Cannizzaro reaction; haloform reaction and nucleophilic addition reactions (Grignard addition); Carboxylic acids: formation of esters, acid chlorides and amides, ester hydrolysis; Amines: basicity of substituted anilines and aliphatic amines, preparation from nitro compounds, reaction with nitrous acid, azo coupling reaction of diazonium salts of aromatic amines, Sandmeyer and related reactions of diazonium salts; carbylamine reaction; Haloarenes: nucleophilic aromatic substitution in haloarenes and substituted haloarenes (excluding Benzyne mechanism and *Cine* substitution).

## **Carbohydrates**

Classification; mono- and di-saccharides (glucose and sucrose); Oxidation, reduction, glycoside formation and hydrolysis of sucrose.

### **Amino acids and peptides**

General structure (only primary structure for peptides) and physical properties.

### **Properties and uses of some important polymers**

Natural rubber, cellulose, nylon, teflon and PVC.

### **Practical organic chemistry**

Detection of elements (N, S, halogens); Detection and identification of the following functional groups: hydroxyl (alcoholic and phenolic), carbonyl (aldehyde and ketone), carboxyl, amino and nitro; Chemical methods of separation of mono-functional organic compounds from binary mixtures.

# MATHEMATICS

## **Algebra**

Algebra of complex numbers, addition, multiplication, conjugation, polar representation, properties of modulus and principal argument, triangle inequality, cube roots of unity, geometric interpretations.

Quadratic equations with real coefficients, relations between roots and coefficients, formation of quadratic equations with given roots, symmetric functions of roots.

Arithmetic, geometric and harmonic progressions, arithmetic, geometric and harmonic means, sums of finite arithmetic and geometric progressions, infinite geometric series, sums of squares and cubes of the first  $n$  natural numbers.

Logarithms and their properties.

Permutations and combinations, binomial theorem for a positive integral index, properties of binomial coefficients.

## **Matrices**

Matrices as a rectangular array of real numbers, equality of matrices, addition, multiplication by a scalar and product of matrices, transpose of a matrix, determinant of a square matrix of order up to three, inverse of a square matrix of order up to three, properties of these matrix operations, diagonal, symmetric and skew-symmetric matrices and their properties, solutions of simultaneous linear equations in two or three variables.

## **Probability**

Addition and multiplication rules of probability, conditional probability, Bayes Theorem, independence of events, computation of probability of events using permutations and combinations.

## **Trigonometry**

Trigonometric functions, their periodicity and graphs, addition and subtraction formulae, formulae involving multiple and sub-multiple angles, general solution of trigonometric equations.

Relations between sides and angles of a triangle, sine rule, cosine rule, half-angle formula and the area of a triangle, inverse trigonometric functions (principal value only).

## **Analytical geometry**

Two dimensions: Cartesian coordinates, distance between two points, section formulae, shift of origin.

Equation of a straight line in various forms, angle between two lines, distance of a point from a line; Lines through the point of intersection of two given lines, equation of the bisector of the angle between two lines, concurrency of lines; Centroid, orthocentre, incentre and circumcentre of a triangle.

Equation of a circle in various forms, equations of tangent, normal and chord. Parametric equations of a circle, intersection of a circle with a straight line or a circle, equation of a circle through the points of intersection of two circles and those of a circle and a straight line.

Equations of a parabola, ellipse and hyperbola in standard form, their foci, directrices and eccentricity, parametric equations, equations of tangent and normal.

Locus problems.

Three dimensions: Direction cosines and direction ratios, equation of a straight line in space, equation of a plane, distance of a point from a plane.

## **Differential calculus**

Real valued functions of a real variable, into, onto and one-to-one functions, sum, difference, product and quotient of two functions, composite functions,

absolute value, polynomial, rational, trigonometric, exponential and logarithmic functions.

Limit and continuity of a function, limit and continuity of the sum, difference, product and quotient of two functions, L'Hospital rule of evaluation of limits of functions.

Even and odd functions, inverse of a function, continuity of composite functions, intermediate value property of continuous functions.

Derivative of a function, derivative of the sum, difference, product and quotient of two functions, chain rule, derivatives of polynomial, rational, trigonometric, inverse trigonometric, exponential and logarithmic functions.

Derivatives of implicit functions, derivatives up to order two, geometrical interpretation of the derivative, tangents and normals, increasing and decreasing functions, maximum and minimum values of a function, Rolle's theorem and Lagrange's mean value theorem.

### **Integral calculus**

Integration as the inverse process of differentiation, indefinite integrals of standard functions, definite integrals and their properties, fundamental theorem of integral calculus.

Integration by parts, integration by the methods of substitution and partial fractions, application of definite integrals to the determination of areas involving simple curves.

Formation of ordinary differential equations, solution of homogeneous differential equations, separation of variables method, linear first order differential equations.

### **Vectors**

Addition of vectors, scalar multiplication, dot and cross products, scalar triple products and their geometrical interpretations.

# PHYSICS

## General

Units and dimensions, dimensional analysis; least count, significant figures; Methods of measurement and error analysis for physical quantities pertaining to the following experiments: Experiments based on using Vernier calipers and screw gauge (micrometer), Determination of  $g$  using simple pendulum, Young's modulus by Searle's method, Specific heat of a liquid using calorimeter, focal length of a concave mirror and a convex lens using  $u-v$  method, Speed of sound using resonance column, Verification of Ohm's law using voltmeter and ammeter, and specific resistance of the material of a wire using meter bridge and post office box.

## Mechanics

Kinematics in one and two dimensions (Cartesian coordinates only), projectiles; Uniform circular motion; Relative velocity.

Newton's laws of motion; Inertial and uniformly accelerated frames of reference; Static and dynamic friction; Kinetic and potential energy; Work and power; Conservation of linear momentum and mechanical energy.

Systems of particles; Centre of mass and its motion; Impulse; Elastic and inelastic collisions.

Law of gravitation; Gravitational potential and field; Acceleration due to gravity; Motion of planets and satellites in circular orbits; Escape velocity.

Rigid body, moment of inertia, parallel and perpendicular axes theorems, moment of inertia of uniform bodies with simple geometrical shapes; Angular momentum; Torque; Conservation of angular momentum; Dynamics of rigid bodies with fixed axis of rotation; Rolling without slipping of rings, cylinders and spheres; Equilibrium of rigid bodies; Collision of point masses with rigid bodies.

Linear and angular simple harmonic motions.

Hooke's law, Young's modulus.

Pressure in a fluid; Pascal's law; Buoyancy; Surface energy and surface tension, capillary rise; Viscosity (Poiseuille's equation excluded), Stoke's law; Terminal velocity, Streamline flow, equation of continuity, Bernoulli's theorem and its applications.

Wave motion (plane waves only), longitudinal and transverse waves, superposition of waves; Progressive and stationary waves; Vibration of strings and air columns; Resonance; Beats; Speed of sound in gases; Doppler effect (in sound).

### **Thermal physics**

Thermal expansion of solids, liquids and gases; Calorimetry, latent heat; Heat conduction in one dimension; Elementary concepts of convection and radiation; Newton's law of cooling; Ideal gas laws; Specific heats ( $C_v$  and  $C_p$  for monoatomic and diatomic gases); Isothermal and adiabatic processes, bulk modulus of gases; Equivalence of heat and work; First law of thermodynamics and its applications (only for ideal gases); Blackbody radiation: absorptive and emissive powers; Kirchhoff's law; Wien's displacement law, Stefan's law.

### **Electricity and magnetism**

Coulomb's law; Electric field and potential; Electrical potential energy of a system of point charges and of electrical dipoles in a uniform electrostatic field; Electric field lines; Flux of electric field; Gauss's law and its application in simple cases, such as, to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell.

Capacitance; Parallel plate capacitor with and without dielectrics; Capacitors in series and parallel; Energy stored in a capacitor.

Electric current; Ohm's law; Series and parallel arrangements of resistances and cells; Kirchhoff's laws and simple applications; Heating effect of current. Biot–Savart's law and Ampere's law; Magnetic field near a current-carrying straight wire, along the axis of a circular coil and inside a long straight solenoid; Force on a moving charge and on a current-carrying wire in a uniform magnetic field.

Magnetic moment of a current loop; Effect of a uniform magnetic field on a current loop; Moving coil galvanometer, voltmeter, ammeter and their conversions.

Electromagnetic induction: Faraday's law, Lenz's law; Self and mutual inductance; RC, LR and LC circuits with d.c. and a.c. sources.

### **Optics**

Rectilinear propagation of light; Reflection and refraction at plane and spherical surfaces; Total internal reflection; Deviation and dispersion of light by a prism; Thin lenses; Combinations of mirrors and thin lenses; Magnification.

Wave nature of light: Huygen's principle, interference limited to Young's double-slit experiment.

### **Modern physics**

Atomic nucleus;  $\alpha$ ,  $\beta$  and  $\gamma$  radiations; Law of radioactive decay; Decay constant; Half-life and mean life; Binding energy and its calculation; Fission and fusion processes; Energy calculation in these processes.

Photoelectric effect; Bohr's theory of hydrogen-like atoms; Characteristic and continuous X-rays, Moseley's law; de Broglie wavelength of matter waves.

# **ARCHITECTURE APTITUDE TEST**

## **Freehand drawing**

This would comprise of simple drawing depicting the total object in its right form and proportion, surface texture, relative location and details of its component parts in appropriate scale. Common domestic or day-to-day life usable objects like furniture, equipment, etc., from memory.

## **Geometrical drawing**

Exercises in geometrical drawing containing lines, angles, triangles, quadrilaterals, polygons, circles, etc. Study of plan (top view), elevation (front or side views) of simple solid objects like prisms, cones, cylinders, cubes, splayed surface holders, etc.

## **Three-dimensional perception**

Understanding and appreciation of three-dimensional forms with building elements, colour, volume and orientation. Visualization through structuring objects in memory.

## **Imagination and aesthetic sensitivity**

Composition exercise with given elements. Context mapping. Creativity check through innovative uncommon test with familiar objects. Sense of colour grouping or application.

## **Architectural awareness**

General interest and awareness of famous architectural creations – both national and international, places and personalities (architects, designers, etc.) in the related domain.

# Annexure-II: CERTIFICATE FORMATS

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Government of .....  
(Name & Address of the authority issuing the certificate)

**INCOME & ASSET CERTIFICATE TO BE PRODUCED BY ECONOMICALLY WEAKER SECTIONS**

Certificate No. \_\_\_\_\_ Date \_\_\_\_\_

1. This is to certify that Shri/Smt./Kumari \_\_\_\_\_ son/daughter/wife of \_\_\_\_\_ permanent resident of \_\_\_\_\_, Village/Street \_\_\_\_\_ Post Office \_\_\_\_\_ District \_\_\_\_\_ in the State/Union Territory \_\_\_\_\_ Pin Code \_\_\_\_\_ whose photograph in attested below belongs to Economically Weaker Sections, since the gross annual income\* of his/her “family”\*\* is below Rs. 8 lakh (Rupees Eight Lakh only) for the financial year 2021-2022. His/her family does not own or possess any of the following assets\*\*\*:

- I. 5 acres of agricultural land and above;
- II. Residential flat of 1000 sq. ft. and above;
- III. Residential plot of 100 sq. yards and above in notified municipalities;
- IV. Residential plot of 200 sq. yards and above in areas other than the notified municipalities.

2. Shri/Smt./Kumari \_\_\_\_\_ belongs to the \_\_\_\_\_ caste which is not recognized as a Schedule Caste, Schedule Tribe and Other Backward Classes (Central List).

Signature with seal of Officer \_\_\_\_\_

Name \_\_\_\_\_

Designation \_\_\_\_\_

Recent Passport size  
attested photograph  
of the applicant

**The income and assets of the families as mentioned  
would be required to be certified by an officer not  
below the rank of Tehsildar in the States/UTs.**

\* **Note1:** Income covered all sources i.e., salary, agricultural, business, profession, etc.

\*\* **Note2:** The term “Family” for this purpose includes the person, who seeks benefit of reservation, his/her parents and siblings below the age of 18 years as also his/her spouse and children below the age of 18 years.

\*\*\* **Note3:** The property held by a “Family” in different locations or different places/cities have been clubbed while applying the land or property holding test to determine EWS status.

OBC-NCL Certificate Format

**FORM OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD  
CLASSES (NCL)\* APPLYING FOR ADMISSION TO CENTRAL  
EDUCATIONAL INSTITUTIONS (CEIs), UNDER THE GOVERNMENT OF  
INDIA**

This is to certify that Shri/Smt./Kum\*\* \_\_\_\_\_ Son/  
Daughter\*\* of Shri/Smt.\*\* \_\_\_\_\_ of Village/  
Town\*\* \_\_\_\_\_ District/Division\*\* \_\_\_\_\_ in  
the State/Union Territory \_\_\_\_\_ belongs to the  
\_\_\_\_\_ community that is recognized as a backward class  
under Government of India\*\*\*, Ministry of Social Justice and Empowerment's Resolution No.  
\_\_\_\_\_ dated \_\_\_\_\_\*\*\*\*

Shri/Smt./Kum. \_\_\_\_\_ and/or \_\_\_\_\_  
his/her family ordinarily reside(s) in the \_\_\_\_\_ District/Division  
of the \_\_\_\_\_ State/Union Territory. This is also to certify that  
**he/she does NOT belong to the persons/sections (Creamy Layer)** mentioned in Column 3 of the  
Schedule to the Government of India, Department of Personnel & Training O.M. No.  
36012/22/93- Estt. (SCT) dated 08/09/93 which is modified vide OM No. 36033/3/2004  
Estt.(Res.) dated 09/03/2004, further modified vide OM No. 36033/3/2004-Estt. (Res.) dated  
14/10/2008, again further modified vide OM No.36036/2/2013-Estt (Res) dtd. 30/05/2014, and  
again further modified vide OM No. 36033/1/2013-Estt (Res) dtd. 13/09/2017.

District Magistrate /  
Deputy Commissioner /  
Any other Competent Authority

Dated:

Seal

\* Visit <http://www.ncbc.nic.in> for latest guidelines and updates on the Central List of State-wise OBCs.

\*\* Please delete the word(s) which are not applicable.

\*\*\* As listed in the Annexure (for FORM-OBC-NCL)

\*\*\*\* The authority issuing the certificate needs to mention the details of Resolution of Government of India, in which the caste of the candidate is mentioned as OBC.

**NOTE:**

- (a) The term 'Ordinarily resides' used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.
- (b) The authorities competent to issue Caste Certificates are indicated below:
  - (i) District Magistrate/ Additional Magistrate/ Collector/ Deputy Commissioner/ Additional Deputy Commissioner/ Deputy Collector/ Ist Class Stipendiary Magistrate/ Sub-Divisional magistrate/ Taluka Magistrate/ Executive Magistrate/ Extra Assistant Commissioner (not below the rank of Ist Class Stipendiary Magistrate).
  - (ii) Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
  - (iii) Revenue Officer not below the rank of Tehsildar' and
  - (iv) Sub-Divisional Officer of the area where the candidate and/or his family resides
  - (v) Certificate issued by any other authority will be rejected

**ANNEXURE for FORM-OBC-NCL**

Sl. No.	Resolution No.	Date of Notification
1	No.12011/68/93-BCC(C)	13.09.1993
2	No.12011/9/94-BCC	19.10.1994
3	No.12011/7/95-BCC	24.05.1995
4	No.12011/96/94-BCC	09.03.1996
5	No.12011/44/96-BCC	11.12.1996
6	No.12011/13/97-BCC	03.12.1997
7	No.12011/99/94-BCC	11.12.1997
8	No.12011/68/98-BCC	27.10.1999
9	No.12011/88/98-BCC	06.12.1999
10	No.12011/36/99-BCC	04.04.2000
11	No.12011/44/99-BCC	21.09.2000
12	No.12015/9/2000-BCC	06.09.2001
13	No.12011/1/2001-BCC	19.06.2003
14	No.12011/4/2002-BCC	13.01.2004
15	No.12011/9/2004-BCC	16.01.2006
16	No.12011/14/2004-BCC	12.03.2007
17	No.12011/16/2007-BCC	12.10.2007
18	No.12019/6/2005-BCC	30.07.2010
19	No. 12015/2/2007-BCC	18.08.2010
20	No.12015/15/2008-BCC	16.06.2011
21	No.12015/13/2010-BC-II	08.12.2011
22	No.12015/5/2011-BC-II	17.02.2014

**SC/ST Certificate Format**

**FORM OF CERTIFICATE TO BE PRODUCED BY SCHEDULED CASTES (SC) AND SCHEDULED TRIBES (ST) CANDIDATES**

1. This is to certify that Shri/ Shrimati/ Kumari\* \_\_\_\_\_ son/daughter\* of \_\_\_\_\_ of Village/Town\* \_\_\_\_\_ District/Division\* \_\_\_\_\_ of State/Union Territory\* \_\_\_\_\_ belongs to the \_\_\_\_\_ Scheduled Caste / Scheduled Tribe\* under :-

- \* The Constitution (Scheduled Castes) Order, 1950
- \* The Constitution (Scheduled Tribes) Order, 1950
- \* **The Constitution (Scheduled Castes) (Union Territories) Order, 1951**
- \* The Constitution (Scheduled Tribes) (Union Territories) Order, 1951

[As amended by the Scheduled Castes and Scheduled Tribes Lists (Modification Order) 1956, the Bombay Reorganisation Act, 1960, the Punjab Reorganisation Act, 1966, the State of Himachal Pradesh Act, 1970, the North Eastern Areas (Reorganisation) Act, 1971, the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 1976 and the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 2002]

- \* The Constitution (Jammu and Kashmir) Scheduled Castes Order, 1956;
- \* The Constitution (Andaman and Nicobar Islands) Scheduled Tribes Order, 1959, as amended by the Scheduled Castes and Scheduled Tribes Order (Amendment) Act, 1976;
- \* The Constitution (Dadara and Nagar Haveli) Scheduled Castes Order, 1962;
- \* The Constitution (Dadara and Nagar Haveli) Scheduled Tribes Order, 1962;
- \* The Constitution (Pondicherry) Scheduled Castes Order, 1964;
- \* The Constitution (Uttar Pradesh) Scheduled Tribes Order, 1967;
- \* The Constitution (Goa, Daman and Diu) Scheduled Castes Order, 1968;
- \* The Constitution (Goa, Daman and Diu) Scheduled Tribes Order, 1968;
- \* The Constitution (Nagaland) Scheduled Tribes Order, 1970;
- \* The Constitution (Sikkim) Scheduled Castes Order, 1978;
- \* The Constitution (Sikkim) Scheduled Tribes Order, 1978;
- \* The Constitution (Jammu and Kashmir) Scheduled Tribes Order, 1989;
- \* The Constitution (Scheduled Castes) Order (Amendment) Act, 1990;
- \* The Constitution (Scheduled Tribes) Order (Amendment) Act, 1991;
- \* The Constitution (Scheduled Tribes) Order (Second Amendment) Act, 1991.

2. # This certificate is issued on the basis of the Scheduled Castes / Scheduled Tribes\* Certificate issued to Shri /Shrimati\* \_\_\_\_\_ father/mother\* of Shri /Shrimati /Kumari\* \_\_\_\_\_ of Village/Town\* \_\_\_\_\_ in District/Division\* \_\_\_\_\_ of the State State/Union Territory\* \_\_\_\_\_ who belong to the Caste / Tribe\* which is recognised as a Scheduled Caste / Scheduled Tribe\* in the State / Union Territory\* \_\_\_\_\_ issued by the \_\_\_\_\_ dated \_\_\_\_\_.

3. Shri/ Shrimati/ Kumari \* \_\_\_\_\_ and / or\* his / her\* family ordinarily reside(s)\*\* in Village/Town\* \_\_\_\_\_ of \_\_\_\_\_ District/Division\* of the State Union Territory\* of \_\_\_\_\_.

Signature: \_\_\_\_\_  
 Designation \_\_\_\_\_  
 (With seal of the Office)

Place: \_\_\_\_\_ State/Union Territory\* \_\_\_\_\_

Date: \_\_\_\_\_

- \* Please delete the word(s) which are not applicable.
- # Applicable in the case of SC/ST Persons who have migrated from another State/UT.

**IMPORTANT NOTES**

The term “ordinarily reside(s)”\*\* used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.

Officers competent to issue Caste/Tribe certificates:

1. District Magistrate / Additional District Magistrate / Collector / Deputy Commissioner / Additional Deputy Commissioner / Deputy Collector / Ist Class Stipendiary Magistrate / City Magistrate / Sub-Divisional Magistrate / Taluka Magistrate / Executive Magistrate / Extra Assistant Commissioner.
2. Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
3. Revenue Officers not below the rank of Tehsildar.
4. Sub-divisional Officer of the area where the candidate and/ or his family normally reside(s).
5. Administrator / Secretary to Administrator / Development Officer (Lakshadweep Island).
6. Certificate issued by any other authority will be rejected.

Form-II  
Disability Certificate

(In cases of amputation or complete permanent paralysis of limbs and in cases of blindness)  
**(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE  
CERTIFICATE)**  
(See rule 4)

Recent PP size  
attested  
photograph  
(showing face  
only) of the person  
with disability

Certificate No. \_\_\_\_\_

Date: \_\_\_\_\_

This is to certify that I have carefully examined

Shri/Smt./Kum. \_\_\_\_\_

\_\_\_\_\_ son/wife/daughter of Shri \_\_\_\_\_ Date of

Birth (DD/MM/YY) \_\_\_\_\_ Age \_\_\_\_\_ years, male/female

\_\_\_\_\_ Registration No. \_\_\_\_\_ permanent resident of House No.

\_\_\_\_\_ Ward/Village/ Street \_\_\_\_\_

Post Office \_\_\_\_\_ District \_\_\_\_\_ State

\_\_\_\_\_, whose photograph is affixed above, and am satisfied that:

1. he/she is a case of:
  - a. locomotor disability
  - b. blindness
 (Please tick as applicable)
2. the diagnosis in his/her case is \_\_\_\_\_
3. He/ She has \_\_\_\_\_% (in figure) \_\_\_\_\_ percent  
(in words) permanent physical impairment/blindness in relation to his/her \_\_\_\_\_  
(part of body) as per guidelines (to be specified).
4. The applicant has submitted the following document as proof of residence:-

Nature of Document	Date of Issue	Details of authority issuing certificate

(Signature and Seal of Authorised Signatory of notified Medical Authority)

Signature/Thumb impression of the person in  
whose favour disability certificate is issued.

Form-III  
Disability Certificate  
(In cases of multiple disabilities)  
(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE  
CERTIFICATE)  
(See rule 4)

Recent PP size  
attested  
photograph  
(showing face  
only) of the person  
with disability

Certificate No. \_\_\_\_\_

Date: \_\_\_\_\_

This is to certify that I have carefully examined

Shri/Smt./Kum. \_\_\_\_\_ son/ wife/daughter of

Shri \_\_\_\_\_ Date of Birth

(DD/MM/YY) \_\_\_\_\_ Age \_\_\_\_\_ years,

male/female \_\_\_\_\_ Registration No. \_\_\_\_\_

permanent resident of House No. \_\_\_\_\_ Ward/Village/Street

\_\_\_\_\_ Post Office \_\_\_\_\_

District \_\_\_\_\_ State

\_\_\_\_\_, whose photograph is affixed above, and are  
satisfied that:

1. He/she is a Case of **Multiple Disability**. His/her extent of permanent physical impairment/ disability has been evaluated as per guidelines (to be specified) for the disabilities ticked below, and shown against the relevant disability in the table below:

S. No.	Disability	Affected Part of Body	Diagnosis	Permanent physical impairment/mental disability (in %)
1	Locomotor disability	@		
2	Low vision	#		
3	Blindness	Both Eyes		
4	Hearing impairment	£		
5	Mental retardation	X		
6	Mental-illness	X		

@ - e.g. Left/Right/both arms/legs

# - e.g. Single eye/both eyes

£ - e.g. Left/Right/both ears

2. In the light of the above, his/her overall permanent physical impairment as per guidelines (to be specified), is as follows:

In figures: \_\_\_\_\_ percent

In words: \_\_\_\_\_ percent

3. The above condition is progressive/ non-progressive/ likely to improve/ not likely to improve.

4. Reassessment of disability is:

(i) not necessary

Or

(ii) is recommended/after \_\_\_\_\_ years \_\_\_\_\_ months, and therefore this certificate shall be valid till (DD/MM/YY) \_\_\_\_\_

5. The applicant has submitted the following document as proof of residence:

Nature of Document	Date of Issue	Details of authority issuing certificate

6. Signature and seal of the Medical Authority:

Name and Seal of Member	Name of Seal of Member	Name and Seal of the Chairperson

Signature/Thumb impression of the person in whose favour disability certificate is issued.

**FORM-PwD (IV)**

Form-IV  
Disability Certificate  
(In cases other than those mentioned in Forms II and III)  
**(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE  
CERTIFICATE)**  
(See rule 4)

Recent PP size  
attested photograph  
(showing face only)  
of the person with  
disability

Certificate No. \_\_\_\_\_ Date: \_\_\_\_\_

This is to certify that I have carefully examined

Shri/Smt./Kum. \_\_\_\_\_ son/ wife/daughter of

Shri \_\_\_\_\_ Date of Birth

(DD/MM/YY) \_\_\_\_\_ Age \_\_\_\_\_ years,

male/female \_\_\_\_\_ Registration No. \_\_\_\_\_

permanent resident of House No. \_\_\_\_\_ Ward/Village/Street

\_\_\_\_\_ Post Office \_\_\_\_\_

District \_\_\_\_\_ State \_\_\_\_\_

\_\_\_\_\_, whose photograph is affixed above, and am  
satisfied that he/she is a case of disability.

1. His/her extent of percentage of physical impairment/disability has been evaluated as per guidelines (to be specified) and is shown against the relevant disability in the table below:

S. No.	Disability	Diagnosis	Permanent physical impairment / mental disability (in %)
1	Locomotor disability		
2	Visual Impairment (blindness / low vision)		
3	Hearing impairment		
4	Speech and language disability		
5	Intellectual disability		
6	Mental-illness		
7	Disability caused due to chronic neurological conditions and / or blood disorders		

(Please strike out the disabilities which are not applicable.)

2. The above condition is progressive/ non-progressive/ likely to improve/ not likely to improve.
3. Reassessment of disability is:
  - a. not necessaryOr
  - b. is recommended/after \_\_\_\_\_ years \_\_\_\_\_ months, and therefore this certificate shall be valid till (DD/MM/YY) \_\_\_\_\_
4. The applicant has submitted the following document as proof of residence:

Nature of Document	Date of Issue	Details of authority issuing certificate

(Authorised Signatory of notified Medical Authority)  
(Name and Seal)

Countersigned

{Countersignature and seal of the CMO/Medical Superintendent/Head of Government Hospital, in case the certificate is issued by a medical authority who is not a government servant (with seal)}

Signature/Thumb impression of the person in whose favour disability certificate is issued.

Note: In case this certificate is issued by a medical authority who is not a government servant, it shall be valid only if countersigned by the Chief Medical Officer of the District.  
Note: The principal rules were published in the Gazette of India vide notification number S.O. 908(E), dated the 31st December, 1996.



**FORM-DYSLEXIC-2**

**\*CERTIFICATE TO BE PRODUCED BY DYSLEXIC CANDIDATE  
FROM THE PRINCIPAL OF THE SCHOOL/COLLEGE LAST  
ATTENDED**

Testimonial

Date:

Name of the candidate:

Date of Birth:

Name and Address of the School/College:

Passport size Photograph of the Candidate
---

Certified that Shri/Smt/Kum \_\_\_\_\_  
son/daughter of \_\_\_\_\_ of  
\_\_\_\_\_ village/town passed his/her Class XII from  
this school and as per records, availed concession under dyslexic category.

Signature with seal:

---

*\* A candidate passing Class XII or equivalent through open school system or in private mode may submit the certificate to this effect from the competent authority in the board certifying the concessions availed under dyslexia.*

**PROFORMA**  
**EDUCATION SCHOLARSHIP-ENTITLEMENT CARD**  
(To children of Armed Forces personnel killed/disabled/missing in wars/CI operations)

The holder of this card Shri/Kum \_\_\_\_\_  
born on \_\_\_\_\_ is the son/daughter of Shri/Smt \_\_\_\_\_  
\_\_\_\_\_, Rank \_\_\_\_\_  
\_\_\_\_\_ of Unit \_\_\_\_\_ Service  
\_\_\_\_\_ Service No. \_\_\_\_\_  
killed in action/permanently disabled/missing on \_\_\_\_\_  
during \_\_\_\_\_ (Name of war/operation).

Name of the Guardian: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

The holder is eligible for all educational concessions sanctioned by Central Government for children of Armed Forces personnel killed, missing or permanently disabled in wars/CI Operations.

Signature (with date) of the authorized Officer

Office Address:

*(Respective record offices of Armed Forces Personnel)*

**FORM-SCRIBE (AMANUENSIS)**

**FORMAT OF REQUEST LETTER FOR SCRIBE (AMANUENSIS) FOR PwD CANDIDATES**

From

Date:

Name of the candidate: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Application Number of JEE (Main) 2022\*:

Mobile No: \_\_\_\_\_ Email: \_\_\_\_\_

The Chairperson, JEE (Advanced) 2022  
Indian Institute of Technology, Bombay/ Delhi/ Guwahati/ Kanpur/ Bhubaneswar/ Madras/  
Roorkee (Tick Appropriate Zone)

Dear Sir,

Subject: Requirement of SCRIBE (AMANUENSIS)

I am a PwD candidate (visually impaired/ dyslexic (severe)/ disability in the upper limbs or loss of fingers). I would like to use the service of a scribe (AMANUENSIS) for writing JEE (Advanced) 2022. Kindly do the needful.

I have read and understood Clauses 14 and 15 of the Information Brochure. I understand that if it is subsequently discovered at any stage that I have used the services of a scribe, but do not possess the extent of disability that warrants the use of a scribe, I shall be excluded from the process of evaluation, ranking and admission and that in case I have already been admitted to any IIT, my admission will be cancelled.

Thanking you,

\_\_\_\_\_  
Signature of the candidate

\_\_\_\_\_  
Signature of the Parent/Guardian

(Name of the Parent/Guardian)

\* The candidates under one-time measure must enter JEE (Main) 2020/2021 Application number

**Enclosed: Copy of Disability Certificate**

**FORM-COMPENSATORY TIME**

**FORMAT OF LETTER FOR PwD CANDIDATES TO OPT FOR COMPENSATORY TIME**

From \_\_\_\_\_ Date: \_\_\_\_\_  
Name of the candidate: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Application Number of JEE (Main) 2022\*:

Mobile No: \_\_\_\_\_ Email: \_\_\_\_\_

The Chairperson, JEE (Advanced) 2022  
Indian Institute of Technology, Bombay/ Delhi/ Guwahati/ Kanpur/ Bhubaneswar/ Madras/  
Roorkee (Tick Appropriate Zone)

Dear Sir,

Subject: Requirement of Compensatory Time

I am a PwD candidate and would like to avail compensatory time of one hour for each paper (i.e., Paper 1 and Paper 2) of JEE (Advanced) 2022.

I have read and understood Clauses 14 and 15 of the Information Brochure. I understand that if it is subsequently discovered at any stage that I have availed of compensatory time, but do not possess the extent of disability that warrants the same, I shall be excluded from the process of evaluation, ranking and admission and that in case I have already been admitted to any IIT, my admission will be cancelled.

Thanking you,

\_\_\_\_\_  
Signature of the candidate

\_\_\_\_\_  
Signature of the Parent/Guardian

(Name of the Parent/Guardian)

\* The candidates under one-time measure must enter JEE (Main) 2020/2021 Application number

**Enclosed: Copy of Disability Certificate**

## DECLARATION BY THE CANDIDATE IN LIEU OF OBC-NCL CERTIFICATE

Name of the candidate: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Passport  
size  
Photograph  
of the  
Candidate

Application Number of JEE (Main) 2022\*:

Mobile No: \_\_\_\_\_ Email: \_\_\_\_\_

I understand that as per the new guideline from the Ministry of Personnel, Public Grievances and Pensions, GoI, I am required to submit OBC-NCL certificate issued on or after April 1, 2022.

Since I have not been able to collect the said certificate on time, I may kindly be allowed to write JEE (Advanced) 2022 provisionally. I hereby declare that I wrote JEE (Main) 2022 as OBC-NCL candidate and that I will upload a fresh certificate (issued on or after April 1, 2022) at the time of reporting after seat allocation.

I understand that inability to upload the same by the given date and time will lead to the withdrawal of OBC-NCL benefit. I also understand that, if qualified, my category will be adjusted accordingly in the Common Rank List.

**Signature of Father/Mother**

Name:

Date:

**Signature of Applicant**

Date:

\* The candidates under one-time measure must enter JEE (Main) 2020/2021 Application number

## DECLARATION BY THE CANDIDATE IN LIEU OF GEN-EWS CERTIFICATE

Name of the candidate: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Passport  
size  
Photograph  
of the  
Candidate

Application Number of JEE (Main) 2022\*:

Mobile No: \_\_\_\_\_ Email: \_\_\_\_\_

I understand that as per the new guideline from the Ministry of Personnel, Public Grievances and Pensions, GoI, I am required to submit GEN-EWS certificate issued on or after April 1, 2022.

Since I have not been able to collect the said certificate on time, I may kindly be allowed to write JEE (Advanced) 2022 provisionally. I hereby declare that I wrote JEE (Main) 2022 as GEN-EWS candidate and that I will upload a fresh certificate (issued on or after April 1, 2022) at the time of reporting after seat allocation.

I understand that inability to upload the same by the given date and time will lead to the withdrawal of GEN-EWS benefit. I also understand that, if qualified, my category will be adjusted accordingly in the Common Rank List.

**Signature of Father/Mother**

Name:

Date:

**Signature of Applicant**

Date:

\* The candidates under one-time measure must enter JEE (Main) 2020/2021 Application number

# Annexure-III:

## **COURSES OFFERED IN THE ACADEMIC YEAR 2021-22**

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## COURSES OFFERED IN THE ACADEMIC YEAR 2021-22

S. No.	Course Name	IITs																							
		BBS	B	Mandi	D	I	KGP	H	J	K	M	GN	P	R	ISM	RPR	BHU	G	BH	GOA	PKD	TP	JM	Dh	
	<b>B. Tech. (4 Years)</b>																								
1	Aerospace Engineering		✓				✓			✓	✓														
2	Agricultural and Food Engineering						✓																		
3	Artificial Intelligence							✓																	
4	Artificial Intelligence and Data Science								✓				✓												
5	Bio Engineering								✓																
6	Biological Sciences and Bioengineering									✓															
7	Biomedical Engineering							✓																	
8	Biosciences and Bioengineering													✓				✓							
9	Biotechnology and Biochemical Engineering				✓		✓																		
10	Biotechnology & Bioinformatics							✓																	
11	Ceramic Engineering																✓								
12	Chemical Engineering		✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓		
13	Chemical Science and Technology																	✓							
14	Civil and Infrastructure Engineering								✓																
15	Civil Engineering	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓		
16	Computational Engineering							✓																	
17	Computer Science and Engineering	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
18	Data Science and Artificial Intelligence																	✓	✓						
19	Data Science and Engineering			✓																					













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## Annexure-IV – IMPORTANT DATES

Sl. No.	Activity	Day, Date and Time (IST)
1.	JEE (Main) 2022 [Computer Based Test by NTA]	Please refer to JEE (Main) 2022 website <a href="https://jeemain.nta.nic.in">https://jeemain.nta.nic.in</a>
2.	Results of JEE (Main) 2022 by NTA	Please refer to JEE (Main) 2022 website <a href="https://jeemain.nta.nic.in">https://jeemain.nta.nic.in</a>
3.	Registration for JEE (Advanced) 2022	Wednesday, June 08, 2022 (10:00 IST) to Tuesday, June 14, 2022 (17:00 IST)
4.	Last date for fee payment of registered candidates	Wednesday, June 15, 2022 (17:00 IST)
5.	Choosing of scribe for PwD candidates	Saturday, July 02, 2022
6.	Admit Card available for downloading	Monday, June 27, 2022 (10:00 IST) to Sunday, July 03, 2022 (14:30 IST)
7.	<b>JEE (Advanced) 2022</b>	<b>Sunday, July 03, 2022</b> <b>Paper 1: 09:00-12:00 IST</b> <b>Paper 2: 14:30-17:30 IST</b>
8.	Copy of candidate responses to be available on the JEE (Advanced) 2022 website	Thursday, July 07, 2022 (10:00 IST)
9.	Online display of provisional answer keys	Saturday, July 09, 2022 (10:00 IST)
10.	Feedback and comments on provisional answer keys from the candidates	Saturday, July 09, 2022 (10:00 IST) to Sunday, July 10, 2022 (17:00 IST)
11.	Online declaration of final answer keys	Monday, July 18, 2022 (10:00 IST)
12.	<b>Result of JEE (Advanced) 2022</b>	<b>Monday, July 18, 2022 (10:00 IST)</b>
13.	Online registration for Architecture Aptitude Test (AAT) 2022	Monday, July 18, 2022 (10:00 IST) to Tuesday, July 19, 2022 (17:00 IST)
14.	Tentative Start of Joint Seat Allocation (JoSAA) 2022 Process	Tuesday, July 19, 2022
15.	Architecture Aptitude Test (AAT) 2022	Thursday, July 21, 2022 (09:00-12:00 IST)
16.	Declaration of results of AAT 2022	Sunday, July 24, 2022 (17:00 IST)

## Annexure-V CONTACT DETAILS OF ZONE-WISE IITs

<b>Zone wise Institutes</b>	<b>Address for Correspondence</b>	<b>Phone Number and Email</b>
<b>South</b> <b>IIT Madras*</b> IIT Hyderabad IIT Palakkad IIT Tirupati	Chairperson JEE (Advanced) 2022 IIT Madras Chennai – 600036	Phone: +91 44 22578220 E-mail: jeeadv@iitm.ac.in
<b>West</b> <b>IIT Bombay*#</b> IIT Gandhinagar IIT Goa IIT Dharwad	Chairperson JEE (Advanced) 2022 IIT Bombay, Powai Mumbai – 400076	Phone: +91 22 25769093 +91 22 25764063 E-mail: jeeadv2022@iitb.ac.in
<b>North-Central</b> <b>IIT Delhi*</b> IIT Jodhpur IIT Jammu	Chairperson, JEE (Advanced) 2022 IIT Delhi, Hauz Khas New Delhi – 110016	Phone: +91 11 26591785 +91 11 26591798 +91 11 26597099 E-mail: jeeadv@admin.iitd.ac.in
<b>North-East</b> <b>IIT Guwahati*</b> IIT Patna	Chairperson JEE (Advanced) 2022 IIT Guwahati Guwahati – 781039	Phone: +91 361 2692795 E-mail: jee@iitg.ac.in
<b>Central</b> <b>IIT Kanpur*</b> IIT Indore IIT (BHU)	Chairperson JEE (Advanced) 2022 IIT Kanpur Kanpur– 208 016	Phone: +91 512 2597325 E-mail: jeeadv@iitk.ac.in
<b>East</b> <b>IIT Bhubaneswar*</b> IIT Kharagpur IIT (ISM) IIT Bhilai	Chairperson, JEE (Advanced) 2022 IIT Bhubaneswar Kansapada Odisha – 752 050	Phone: +91 8270032069 Email: office.jee@iitbbs.ac.in
<b>North</b> <b>IIT Roorkee*</b> IIT Mandi IIT Ropar	Chairperson JEE (Advanced) 2022 IIT Roorkee Roorkee – 247667	Phone: +91 1332 284272 E-mail: jeeoffice@iitr.ac.in

\* *Zonal Coordinating IIT, # Organizing IIT*

# Participating Institutes



Indian Institute of Technology Bombay



Indian Institute of Technology (Banaras Hindu University)



Indian Institute of Technology Bhilai



Indian Institute of Technology Bhubaneswar



Indian Institute of Technology Delhi



Indian Institute of Technology (Indian School of Mines)



Indian Institute of Technology Dharwad



Indian Institute of Technology Gandhinagar



Indian Institute of Technology Goa



Indian Institute of Technology Guwahati



Indian Institute of Technology Hyderabad



Indian Institute of Technology Indore



Indian Institute of Technology Jammu



Indian Institute of Technology Jodhpur



Indian Institute of Technology Kanpur



Indian Institute of Technology Kharagpur



Indian Institute of Technology Madras



Indian Institute of Technology Mandi



Indian Institute of Technology Palakkad



Indian Institute of Technology Patna



Indian Institute of Technology Roorkee



Indian Institute of Technology Roopar



Indian Institute of Technology Tirupati